CENTRAL AREA MONITORING PROGRAM

A Joint Program of:

City of Toronto

The Municipality of Metropolitan Toronto

Toronto Transit Commission

THIRD ANNUAL REPORT

Prepared by:

Metropolitan Toronto Planning Department

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1.0 INTRODUCTION

1.1 Background

The Central Area Monitoring Program (C.A.M.P.) was initiated by Metropolitan Toronto and the City of Toronto in 1985. This is the third of a series of annual reports, and was produced to present the additional land use and transportation data for the Central Area which were collected or made available during 1988. Comparisons are also made with previous years where data is available.

The first two reports, which were published in September, 1987 and June, 1988, contain detailed background information on previous transportation studies undertaken in the Central Area. A need for a comprehensive land use/transportation monitoring program has been identified, in order to assist in implementing new development proposals in the Central Area in harmony with necessary improvements to the regional transportation system to accommodate increased travel demands resulting from additional employment. The reader is referred to the previous reports for more detailed background information on the scope of the C.A.M.P.

1.2 Objectives of the Program

The objectives of the Central Area Monitoring Program, as identified in the previous reports, are as follows:

(a) to document a number of key Central Area variables such as transportation system usage, travel characteristics, office floor space, vacancy rates, population, labour force and employment;

(b) to identify causal transportation relationships which will facilitate the estimation of travel generated by proposed future developments, and hence:

(c) to identify the need and timing for additions or improvements to the transportation system required to accommodate the proposed developments.

1.3 Contents of Report

As in the previous years, this report provides time series information on various land use and transportation variables such as population, employment,

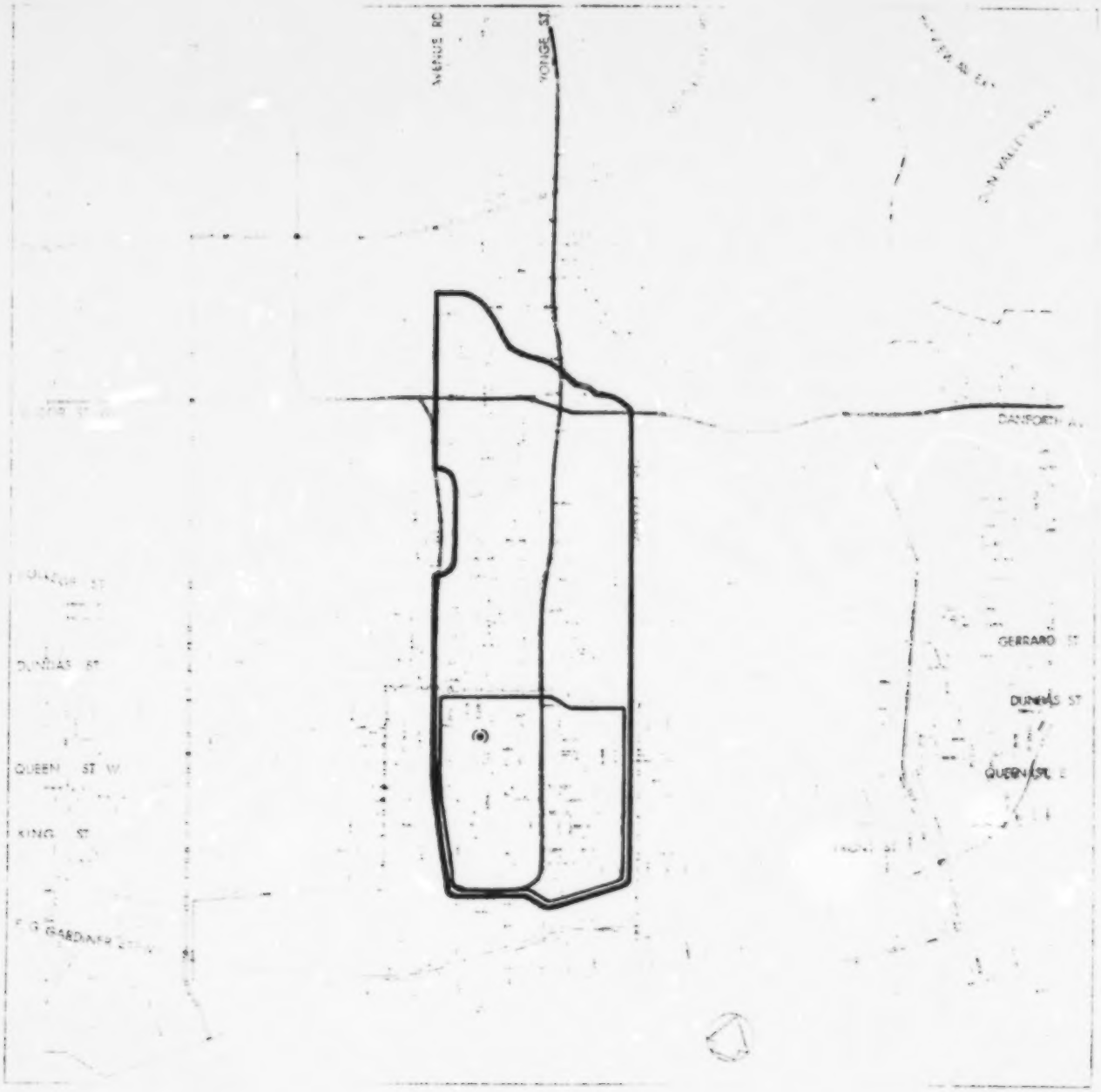


EXHIBIT 1: CORDONS WITHIN THE CENTRAL AREA

office space availability and utilization, transportation system usage and travel behaviour characteristics. Information compiled based on both ongoing and special purpose surveys during 1988 is presented in the report and comparisons are made, to identify trends, where data is available from previous years.

Although, in terms of the objectives listed above, this report, as were the previous ones, is primarily addressed to objective (a), it is expected that as the additional data become available, more accurate relationships between land use and transportation related variables will be identified and more precise estimates of travel demands will be possible. Therefore, the objectives (b) and (c) above would be addressed by the Metropolitan and City of Toronto planning agencies as the Program proceeds.

1.4 Study Area

The study area defined for the purpose of C.A.M.P. is the area enclosed by the Central Area Cordon (Exhibit 1). As part of the Metro Cordon Count Program, inbound and outbound vehicle and person flows are monitored across this cordon regularly. The area is bounded by Bathurst Street on the west, the C.P. North Toronto rail line on the north, the Moore Park Ravine and Bayview Avenue Extension on the east and the waterfront on the south. For demographic purposes, the area is assumed to include the Toronto Islands residential community, which has ferry access within the cordon, but not the Island Airport, access to which is outside of the cordon.

In addition to the Central Area itself, data is also collected and presented for the three other cordons defined within the Central Area. These are:

(i) Downtown Cordon, bounded by University Avenue, Davenport Road/Church Street, Jarvis Street and Front Street;

(ii) Downtown Core Cordon, bounded by University Avenue, Dundas Street, Jarvis Street and Front Street as the southern portion of the Downtown Cordon; and

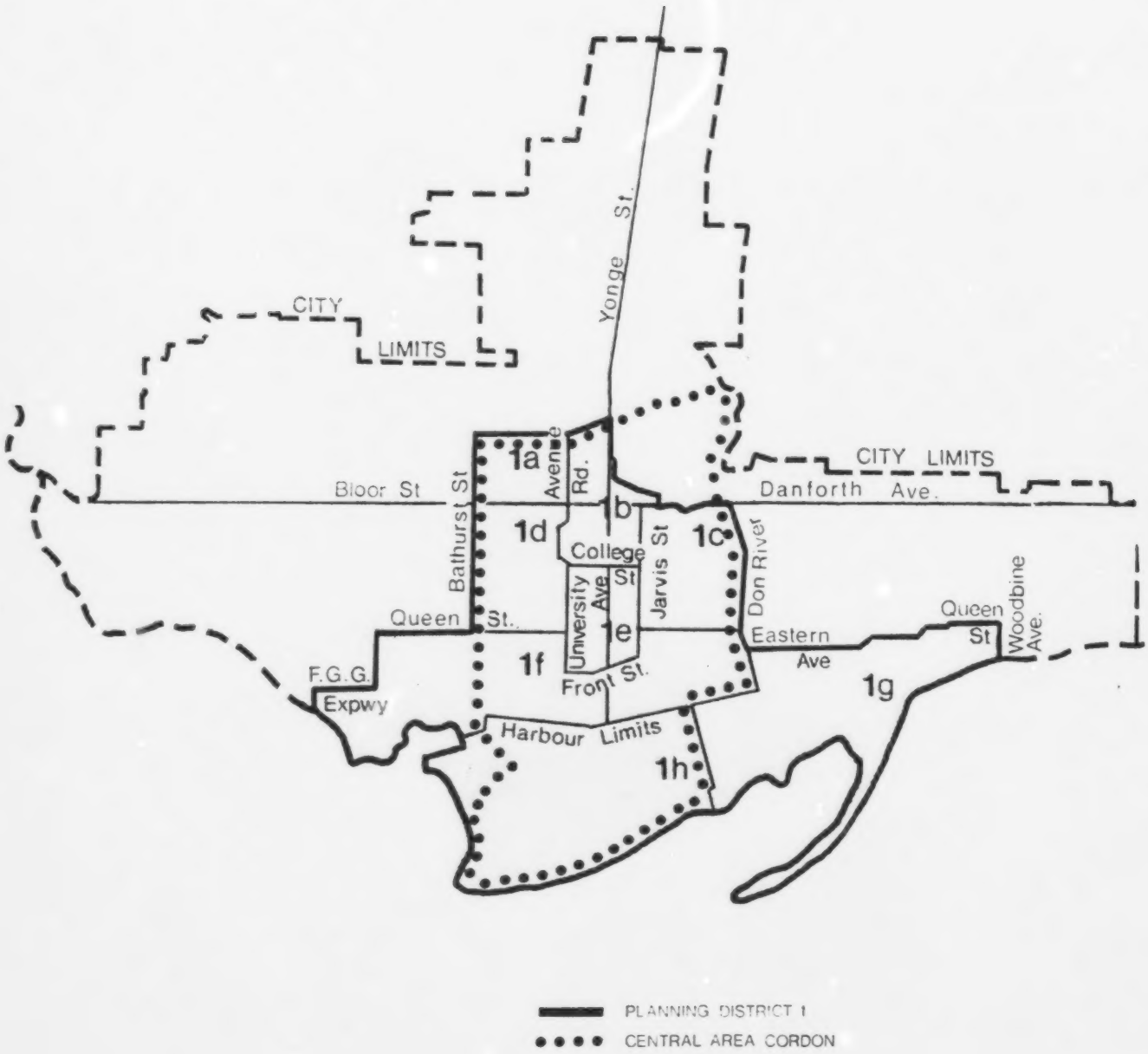


EXHIBIT 2: THE CENTRAL AREA AND PLANNING DISTRICT 1

(iii) Extended Core Cordon, bounded by Bathurst, Front and John Streets on the west, Dundas Street on the north, Jarvis Street on the east and the waterfront on the south. This cordon was established in 1985 specifically for the C.A.M.P., for the purpose of incorporating both the traditional financial district (Downtown Core) and the newly-developing areas to the west of University Avenue and south of Front Street, including Harbourfront and Railway Lands.

The boundaries of the four cordons referred to above are shown in Exhibit 1.

Metropolitan Planning District No. 1 (referred to as P.D.1) has been defined in most other Metropolitan and City of Toronto reports as the "Central Area". Exhibit 2 compares the boundaries of P.D.1 and the C.A.M.P. study area.

1.5 Participants

The following departments and agencies are represented on the Central Area Monitoring Program project team and/or provide input to the Program:

Metropolitan Toronto Planning Department;
Metropolitan Toronto Roads and Traffic Department;
City of Toronto Planning and Development Department;
City of Toronto Public Works Department;
Toronto Transit Commission (T.T.C.), Administration and Planning Branch;
GO Transit, Corporate Planning Branch;
Ministry of Transportation (M.T.O.), Municipal Transportation Policy Planning Branch

The contributions of all these agencies are gratefully acknowledged.

2.0 SOURCES OF INFORMATION

The Central Area Monitoring Program brings together a variety of sources, some of them ongoing data collection programs and some of them one-time studies and special surveys related to the Central Area. The following is a summary of the major data sources utilized in this report.

2.1 Metro Cordon Count Program

The Cordon Count Program involves one-day manual roadside counts of vehicles (private, commercial and transit) and occupants crossing a series of screenlines by 15-minute periods. Roadside counts are supplemented by subway and GO Train passenger counts provided by T.T.C. and GO Transit respectively. Counts at the Central Area and Extended Core Cordons are taken annually, while the Downtown and Downtown Core Cordons are counted every second year (1986, 1988, etc.). Therefore, all four cordons have been counted in 1988.

2.2 Other Transportation Counting Programs

Passenger counts by train at key locations on the subway system have been collected by the T.T.C. on a monthly basis.

GO Transit has taken complete station on/off counts for all trains on each route.

2.3 Metro Employment Survey

The Metropolitan Toronto Planning Department has undertaken annual surveys to provide up-to-date information on full-time and part-time employment throughout Metropolitan Toronto since 1981/1982. Normally, about half of the establishments, classified as non-residential for assessment purposes, are surveyed each year. However, in connection with C.A.M.P., the sample rate within P.D.1 has been 100 percent in 1986, 1987 and 1988, with the aid of a Provincial subsidy.

2.4 Office Space Survey

The Metropolitan Planning Department maintains a computerized Office Data Bank of existing office space, as well as information on proposed office developments in various stages of approval. Information for the Central Area is obtained from the City of Toronto. In addition, Royal LePage conducts an annual survey of rented and vacant space in office buildings with over 20,000 sq.ft. (1,858 sq.m.) of net rentable office area.

2.5 Transportation Tomorrow Survey (T.T.S.)

A telephone interview survey of household travel behaviour in the Greater Toronto Area was conducted in the Fall of 1986. This was the most comprehensive survey of travel patterns carried out in the Toronto area since the 1964 home interview survey. Therefore, it is expected that the results of the 1986 survey, referred to as the Transportation Tomorrow Survey (T.T.S.), will be used for transportation analysis and planning purposes for many years in the future.

Analysis of the survey results has been mostly completed during the past year. Based on the preliminary overview of the key findings, valuable information has been obtained with respect to trip distribution and modal split characteristics of work trips to P.D.1.

2.6 Speed and Delay Study

The Speed and Delay Study was the main addition to the C.A.M.P. in 1988. The purpose of initiating a Speed and Delay Study was to collect data on average travel speeds and delays for various sections of major arterial roads within the Central Area. Supplemented by the volume data from the Cordon Count program, the speed/delay information would provide a more complete picture of the performance of the road system.

The field survey, which was undertaken during May/June, 1988, involved making multiple runs in a specially-equipped car, provided by the Metro Roads and Traffic Department, during the a.m. peak, off-peak and p.m. peak

periods. An electronic recorder measured the elapsed time and distance while the operator identified all stops and delays for traffic signals, congestion, etc. The information was subsequently transferred to microcomputer for processing and analysis. A team of survey staff from Metropolitan Toronto, the City of Toronto and T.T.C. were involved in this study.

It is expected that the Speed and Delay Study will be conducted every two years.

3.0 FINDINGS

3.1 Employment

Based on the results of the 1988 Metro Employment Survey, full-time and part-time employment statistics within each of the four cordons in the Central Area have been updated. The results of the analysis show that, generally, total employment has continued to increase in 1988 within the Central Area, although at a slower rate compared to 1987.

(a) Central Area Cordon

The total employment in the area enclosed by the Central Area Cordon has increased by 4,817 or 1.3% between 1987 and 1988 due mainly to an increase in part-time employment in all sectors. However, full-time employment actually decreased by 1,282 or 0.4% during the past year (see Exhibit 3). Full-time employment declined moderately in all sectors except Office and Institutional. Total Office employment showed the highest increase in the Central Area. It increased by about 5,950 during 1988, which represents a 2.6% increase over the 1987 Office employment level. As a result, the Office sector represented 63.1% of the total employment in the Central Area, which is slightly higher than 62.4% in 1987. The ratio of part-time Office employment to total Office employment in the Central Area has risen quite significantly from 5.3% in 1987 to 6.3% in 1988. The part-time share of the total employment in all sectors combined has also increased, from 11.5% to 12.9%, during 1988.

(b) Downtown Core Cordon

As can be seen in Exhibit 4, total employment in each sector did not change significantly from the previous year within the Downtown Core Cordon. Total employment has increased slightly by about 412 or 0.3% between 1987 and 1988, although full-time employment showed a net decrease of about 1,650 or 1.3% during the same period. Part-time as a proportion of total employment continued to rise and it represented

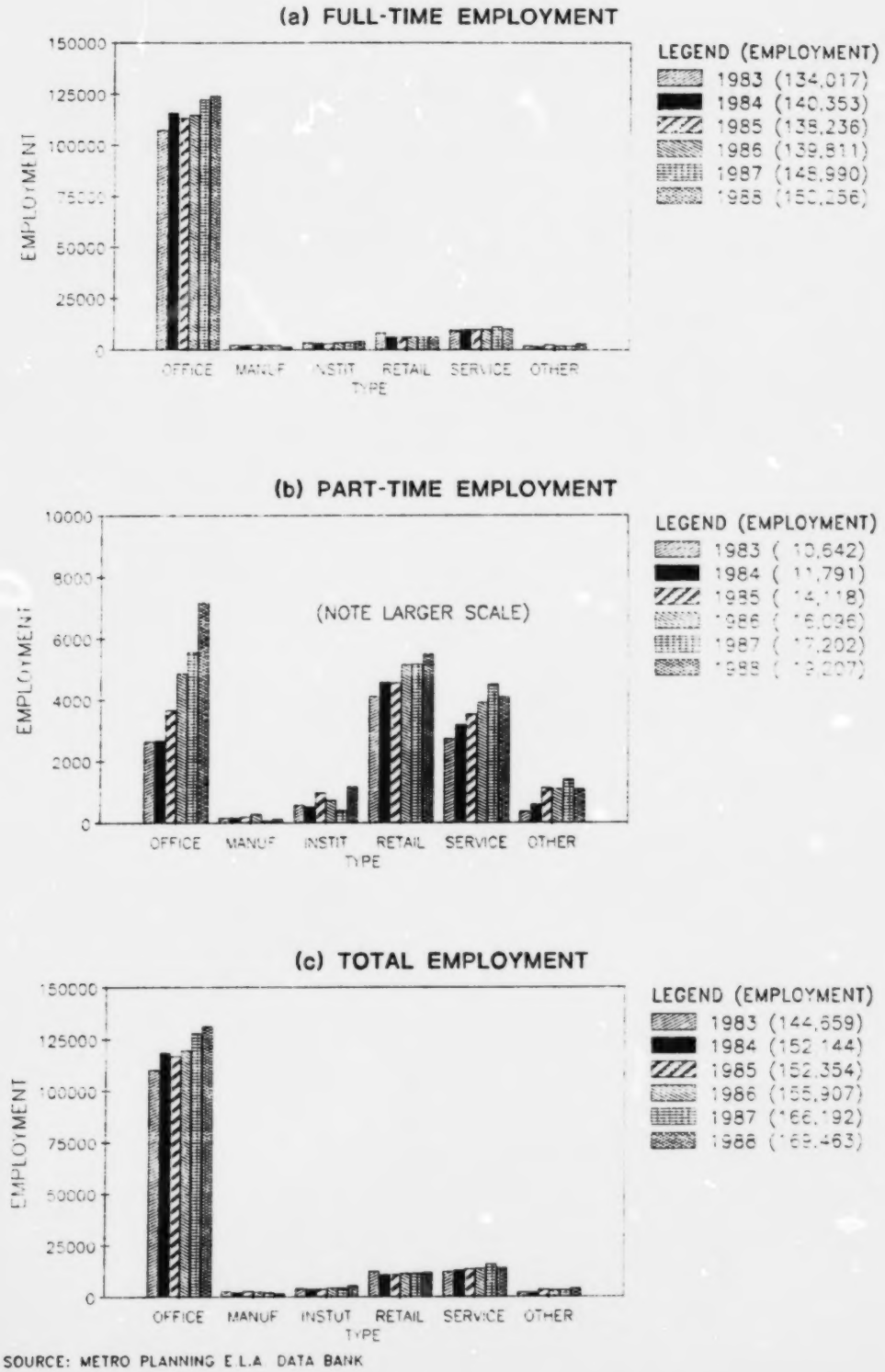
EXHIBIT 3: EMPLOYMENT WITHIN CENTRAL AREA CORDON, 1983-1988

SOURCE: METRO PLANNING E.I.A. DATA BANK

EXHIBIT 4: EMPLOYMENT WITHIN DOWNTOWN CORE CORDON, 1983-1988

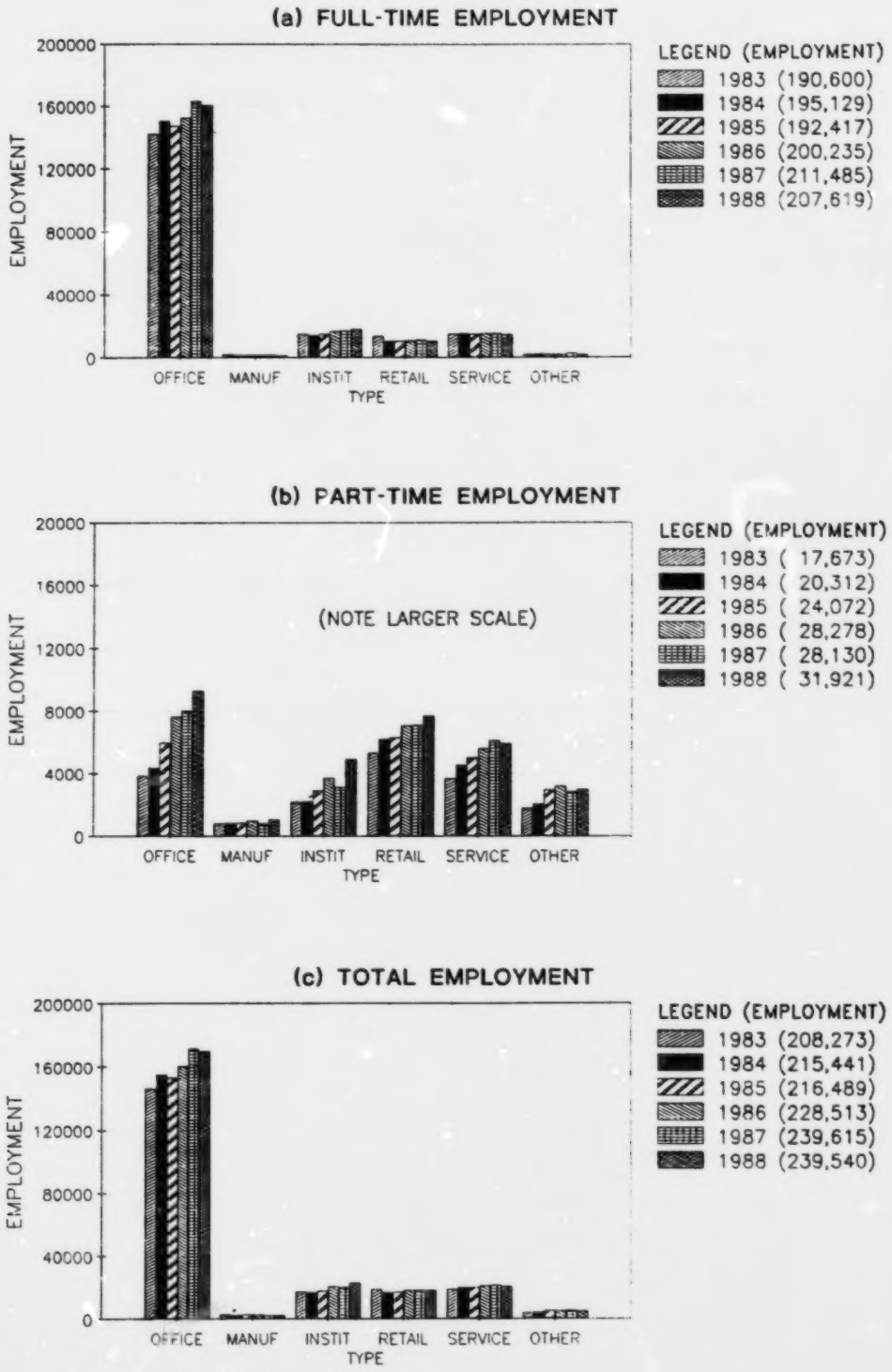
SOURCE: METRO PLANNING E.L.A. DATA BANK

EXHIBIT 5: EMPLOYMENT WITHIN EXTENDED CORE CORDON, 1983-1988



SOURCE: METRO PLANNING E L.A DATA BANK

EXHIBIT 6: EMPLOYMENT WITHIN DOWNTOWN CORDON, 1983-1988



SOURCE: METRO PLANNING E.L.A. DATA BANK

11.5% of total employment in 1988, compared to 10.1% in 1987. Within the Downtown Core Cordon, part-time employment increased by 2,061 or 15.1% during 1988. Most of this increase in part-time employment was in the Office and Institutional sectors.

(c) Extended Core Cordon

Employment trends within the Extended Core Cordon are shown in Exhibit 5. Both full-time and part-time employment continued to increase within the Extended Core Cordon during 1988. Total employment increased by 3,271 or 2.0%. Almost 90% of this increase occurred in the newly-developing western and southern portions, i.e. south of Front Street and the area between John Street and University Avenue. Although the total employment growth of 2.0% in the Extended Core Area is not highly significant, it is important to note that the net growth of 2,850 employment in the area outside the Downtown Core represents a 9.5% growth over the 1987 level. Most of the increase was in the Office and Institutional Sectors. Employment in the Manufacturing/Wholesaling and Service sectors declined significantly within the Extended Core Cordon.

Approximately 80.0% of the total employment was in the Office sector within the Downtown Core portion. This ratio did not change between 1987 and 1988. However, office employment was only 67.5% of the total employment in the rest of the Extended Core Cordon in 1988, which showed a moderate increase from 64.2% in 1987.

(d) Downtown Cordon

Exhibit 6 summarizes employment within the Downtown Cordon. Total employment did not change significantly between 1987 and 1988. Employment in every sector either declined slightly or remained virtually at the same level as in 1987, with the exception of Institutional which grew by about 2,800 or 13.8%. A decrease of 3,866 or 1.8% in full-time employment was more or less off-set by a growth

of 3,791 in part-time employment within the Downtown Cordon during the past year. As a result, the percentage of part-time employment increased from 11.7% in 1987 to 13.3% in 1988. Office employment decreased by 1.0% from its 1987 level. However, most of the decline in employment within the Downtown Cordon occurred in the area north of the Downtown Core.

(e) Periphery of the Central Area Cordon

Outside the three inner cordons, total employment grew by 2,033 between 1987 and 1988, compared to a growth of 2,600 between 1986 and 1987. Office employment increased by about 4,750 in 1988 compared to a net decrease of 125 between 1986 and 1987. However, this increase in Office employment was off-set to some extent by relatively minor decreases in other sectors.

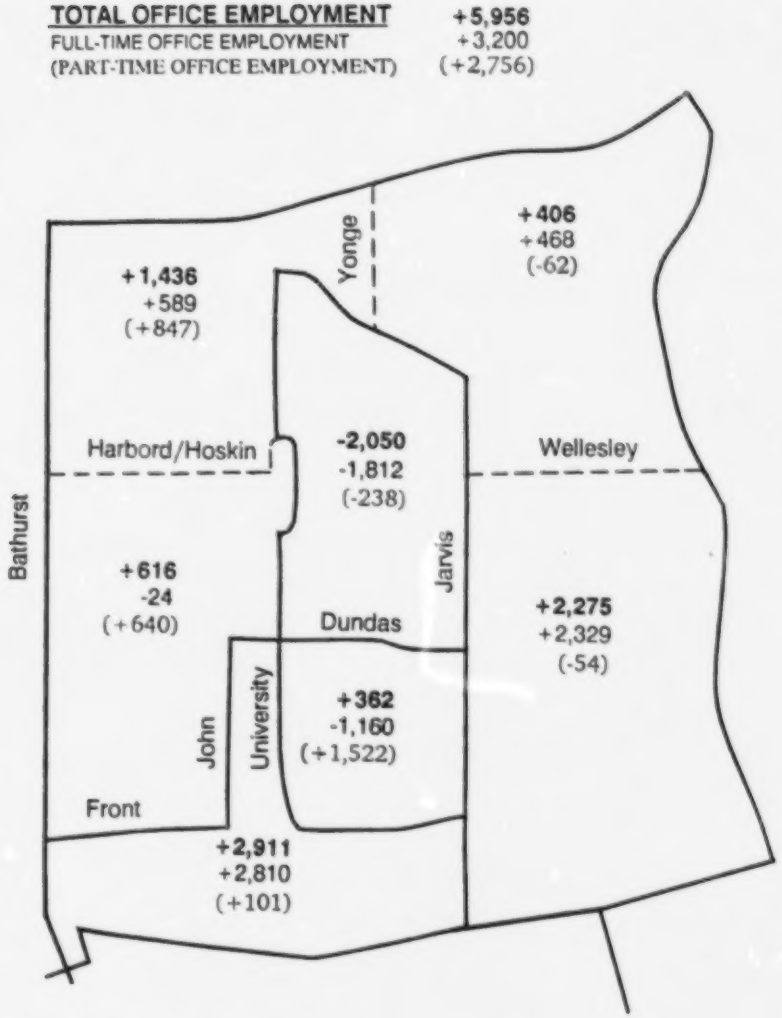
Full-time, part-time and total employment growth in each sub-area is shown in Exhibit 7. The employment growth in the Office sector alone is summarized in Exhibit 7.A.

Summary

The 1988 Metropolitan Employment Survey indicated that, although total employment within the Central Area continued to grow during the past year, it did not show as significant a growth as during the previous years, especially between 1986 and 1987. Most of the growth within each cordon was in the Office and Institutional sectors. Office employment remained as the single major component of the total employment in the Central Area. Manufacturing/Wholesaling and Service sectors showed some declines while Retail and "Other" employment showed only minor changes. The majority of the employment growth occurred in the periphery of the Central Area Cordon and within the Extended Core Cordon outside the Downtown Core portion. Part-time employment grew more significantly compared to the previous years within each cordon, and in almost all sectors, but most significantly in

EXHIBIT 7: EMPLOYMENT GROWTH BY SUB-AREA, 1987-1988

EXHIBIT 7.A: OFFICE EMPLOYMENT GROWTH BY SUB-AREA, 1987-1988



the Office and Institutional sectors. The proportion of part-time employment has also increased significantly between 1987 and 1988.

Employment by each type within each cordon is summarized in Exhibit A.1.

It should be noted that the Metropolitan Employment Survey is a door-to-door survey of non-residential establishments conducted by student manpower. As such, it is subject to errors due to factors such as omission from the source file (the Provincial Assessment file), employer's definition of part-time, allocation to correct employment sector, or non-cooperation of employers.

3.2 Population

Population data from Provincial Assessment Files for the period 1981 to 1987 are summarized in Exhibit 8. Data for 1988 was not available at the time when this report was prepared. It is expected that population would continue to show strong growth in the Central Area in 1988, as a result of recently completed large residential developments in both the Downtown and Extended Core Cordons.

3.3 Office Market Conditions

The history of construction and leasing of office space in the Central Area between 1965 and 1986, based on Royal LePage surveys of office buildings over 20,000 sq.ft, was summarized in detail in the first annual C.A.M.P. report. It was also noted in the second annual report that the office vacancy rate had had a history of fluctuation. The 1988 Office Space Market Survey by Royal LePage indicated that the vacancy rate in the Central Area was slightly higher at the end of December 1988 compared to a year earlier. The vacancy rate increased especially within the "Central Core" and "Downtown West" portions while decreasing within other parts of the "Downtown Area".

The vacancy rate for the "Downtown Area", which corresponds approximately to the Central Area Cordon south of Bloor Street, increased from 3.7% in

EXHIBIT 8: POPULATION WITHIN CORDONS, 1981-1987

YEAR	Central Area	Downtown Core	Extended Core	Downtown
1981	120,755	705	3,975	22,090
1982	123,470	710	4,195	22,305
1983	125,105	1,040	4,795	23,245
1984	125,810	1,305	5,105	23,585
1985	127,845	1,700	5,700	25,660
1986	128,620	1,765	6,280	25,970
1987	131,560	1,800	6,515	27,520
1988	N/A	N/A	N/A	N/A
Growth 81-87	10,805	1,095	2,540	5,430
(% Growth)	8.9%	155.3%	63.9%	24.6%

December 1987 to 4.7% in December 1988. It also increased slightly in the area north of Bloor Street from 2.7% to 2.8%.

A total of approximately 5,144,000 sq.m. (over 55 million sq.ft.) of office space existed within the Central Area at the end of 1988. The total occupied space was approximately 4,916,000 sq.m. (about 53 million sq.ft.). Occupied space increased by about 112,000 sq.m. (or 1,200,000 sq.ft.) within the Central Area between December, 1987 and December, 1988. The highest absorption of new space was in the Financial Core Area; close to 80,000 sq.m. (857,000 sq.ft.) of office space was absorbed within the Financial Core during 1988, although there was no major employment growth. In the Downtown West Area and in the area north of Bloor Street, the amount of occupied space decreased, by about 4,000 sq.m. in each of these sub-areas, while increasing in other parts of the Central Area.

Based on data from the Metropolitan Employment Survey, the Floor Space/Worker (F.S.W.) ratio within the Central Area as of February, 1988 is 25.0 square metres of net floor area per worker, which did not change compared to a year earlier.

The previous C.A.M.P. reports also summarized office rental rates based on various surveys undertaken during the previous years. Comparable data is not available for 1988.

3.4 Transportation System Usage and Travel Characteristics

This section summarizes:

- the person and vehicle flow data collected under the Metro Cordon Count Program, as well as specific road and transit counts;
- distribution and modal split of Home-to-Work trips to the Central Area of Toronto (P.D.1) from the results of T.T.S.;
- off-street parking inventory data compiled by the City of Toronto; and
- the results of the 1988 speed/delay study.

3.4.1 Person and Vehicle Flows

I. Cordon Counts

As part of the Metro Cordon Count Program, vehicle trips were counted across the Central Area Cordon by Toronto Transit Commission staff in 1988. City of Toronto staff undertook the person and vehicle counts across the other cordons within the Central Area.

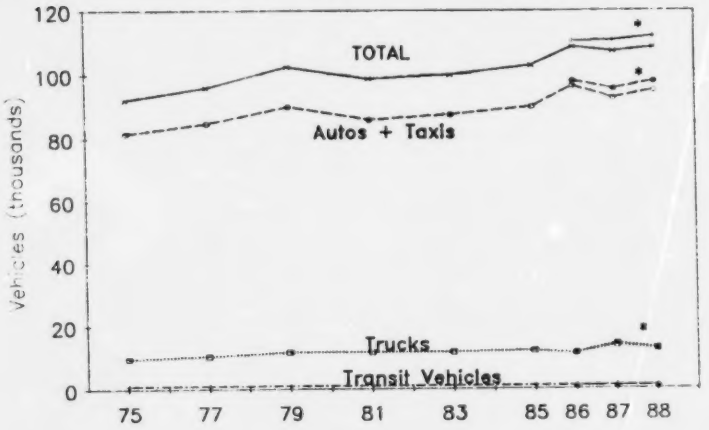
Detailed tabulations of cordon count data for the four cordons are presented in Exhibits A.2 through A.9 for the years between 1975 and 1988. Exhibits 9 through 12 are graphical illustrations of the historical trends in vehicle and passenger flows for peak periods, peak directions.

In this report, in addition to 1988 data, three-hour counts for 1986 at the Central Area Cordon are also presented; these were omitted in last year's report. Furthermore, for the Central Area Cordon, vehicle and person flows are summarized taking into account additional cordon count stations across the Bathurst screenline, which have been included in the program since 1986. Since only the vehicles and transit person trips were counted across the Central Area Cordon, in 1988, auto person trips were estimated using the 1987 auto occupancy rates.

In general, vehicle counts are more accurate than passenger counts since the exact number of persons is often difficult to estimate because of fast-moving traffic, tinted windows or crowded public transit vehicles. Finally, it should be borne in mind that one-day cordon counts are affected by various factors such as weather, accidents and road construction/maintenance. Therefore, care should be taken in interpreting the data for a particular year and inferring short-term trends from cordon counts, since day-to-day variations can easily mask actual annual trends.

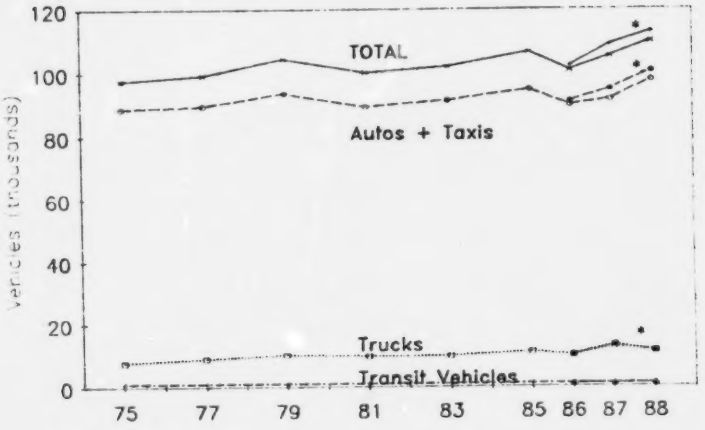
EXHIBIT 9: PEAK PERIOD VEHICLES CROSSING OUTER CORDONS, 1975-1988

(a) CENTRAL AREA CORDON
7:00 to 10:00 a.m. Inbound



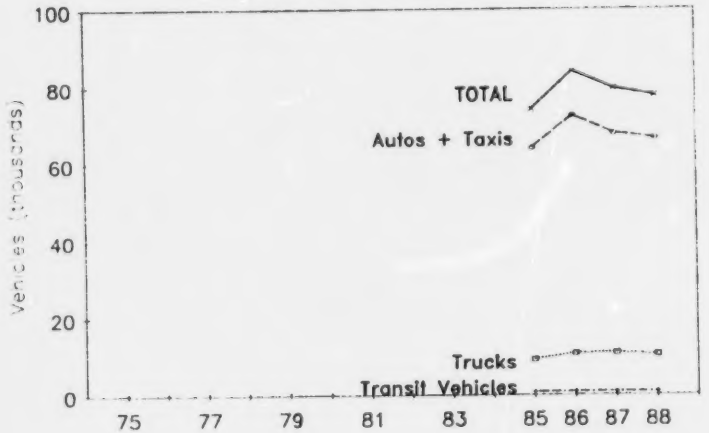
* Including new stations

(b) CENTRAL AREA CORDON
3:30 to 6:30 p.m. Outbound



* Including new stations

(c) EXTENDED CORE CORDON
7:00 to 10:00 a.m. Inbound



(d) EXTENDED CORE CORDON
3:30 to 6:30 p.m. Outbound

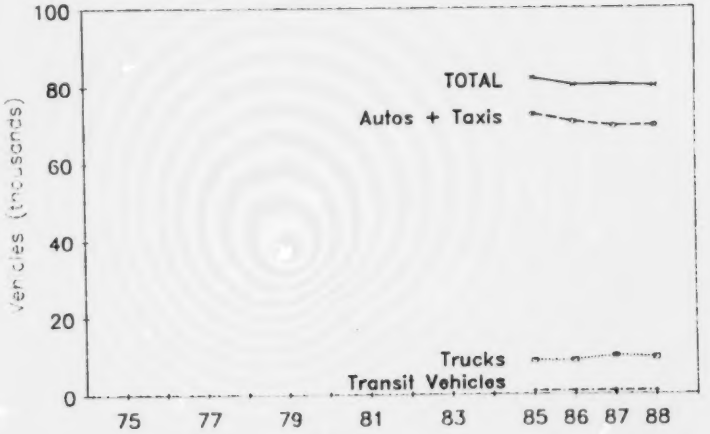
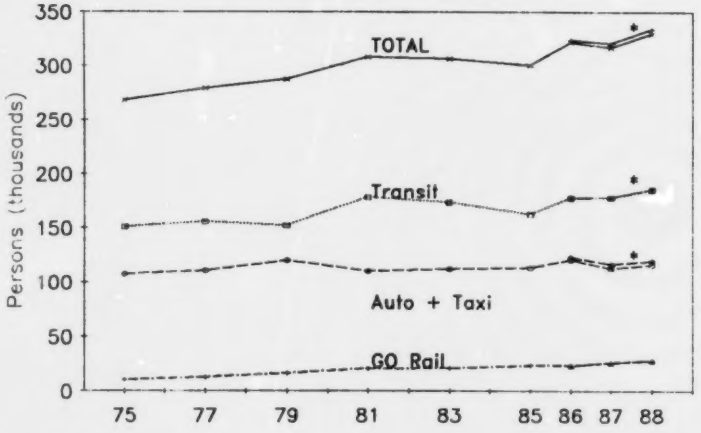


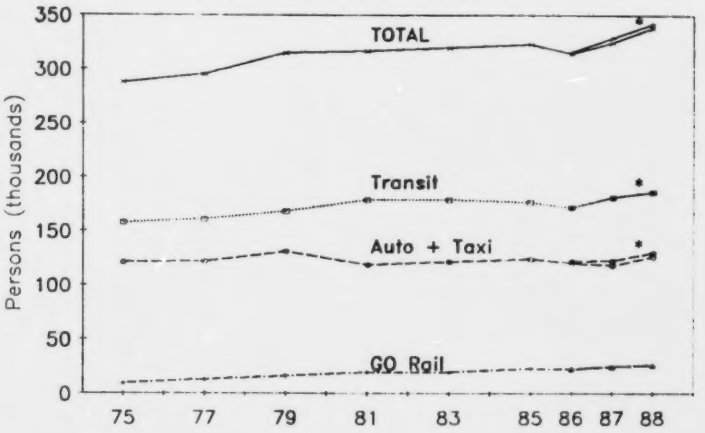
EXHIBIT 10: PEAK PERIOD PERSONS CROSSING OUTER CORDONS, 1975-1988

(a) CENTRAL AREA CORDON
7:00 to 10:00 a.m. Inbound



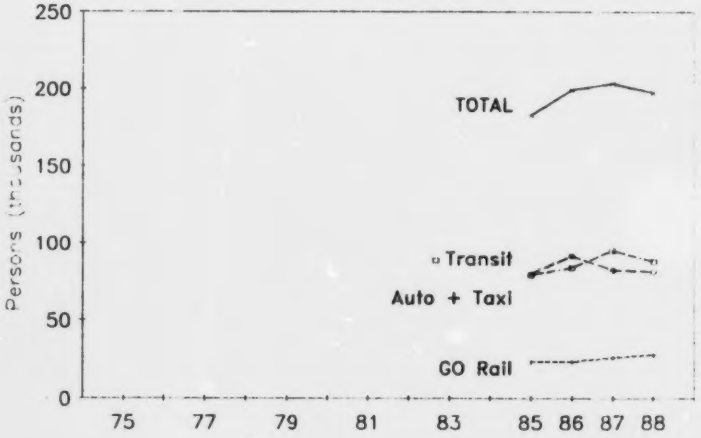
* Including new stations

(b) CENTRAL AREA CORDON
3:30 to 6:30 p.m. Outbound



* Including new stations

(c) EXTENDED CORE CORDON
7:00 to 10:00 a.m. Inbound



(d) EXTENDED CORE CORDON
3:30 to 6:30 p.m. Outbound

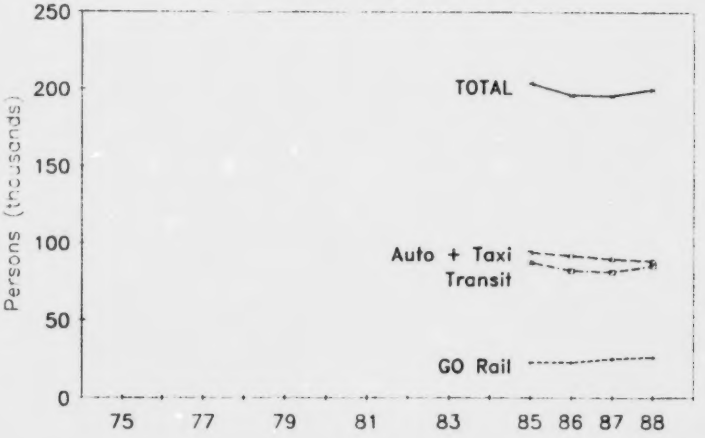


EXHIBIT 11: PEAK PERIOD VEHICLES CROSSING INNER CORDONS, 1975-1988

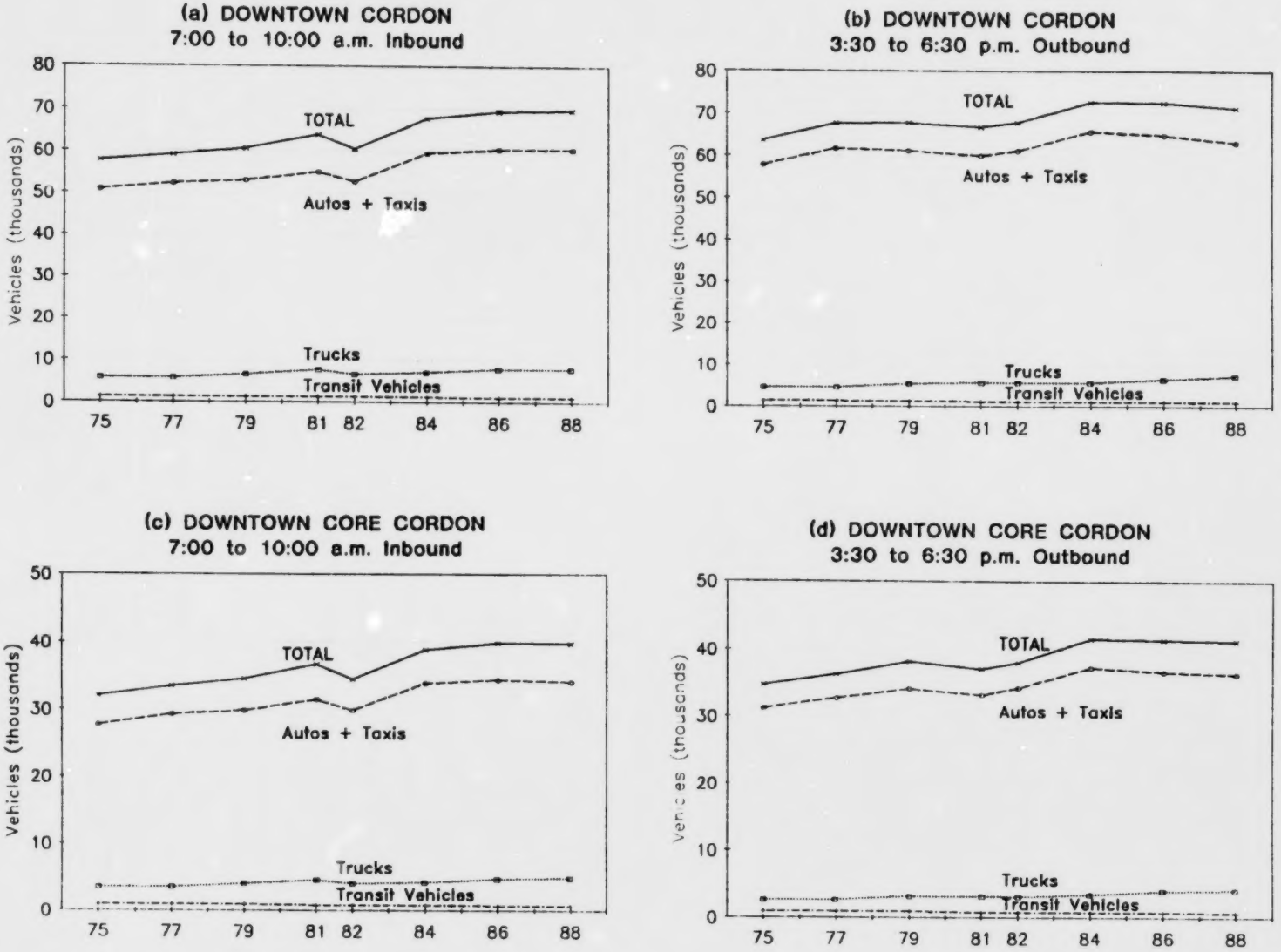
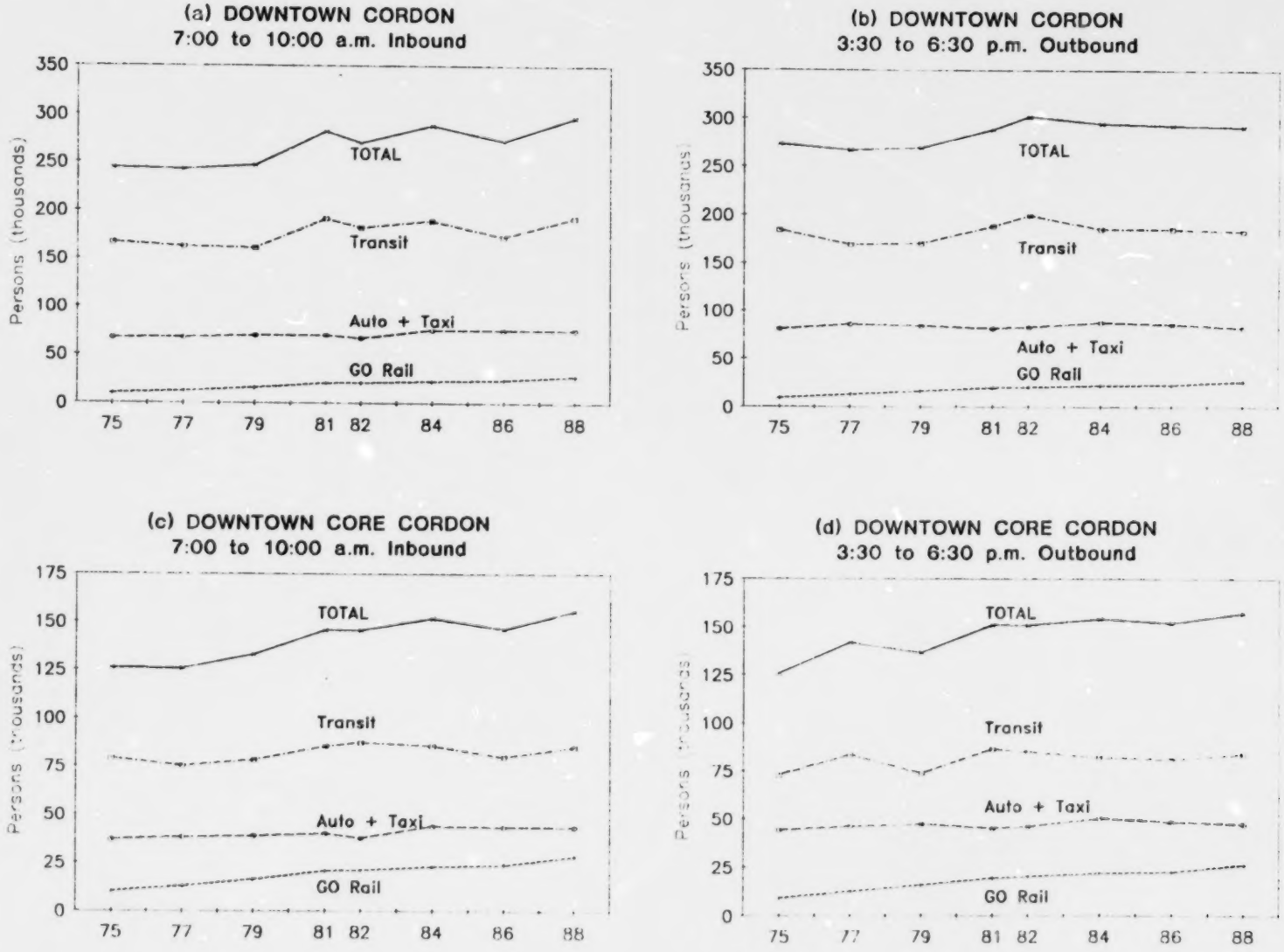


EXHIBIT 12: PEAK PERIOD PERSONS CROSSING INNER CORDONS, 1975-1988



(a) Central Area Cordon

Across the Central Area Cordon, total inbound vehicles during the 7:00 to 10:00 a.m. peak period increased by 1.2% excluding the additional stations across Bathurst Street and 1.0% including them. In the outbound direction during the 3:30 to 6:30 p.m. peak period the respective increases were 4.4% and 3.7% between 1987 and 1988. Autos and taxis and transit vehicles increased moderately while the number of trucks across the Central Area Cordon declined during that period. Increases across the Bathurst Street Screenline were more significant than at the east and north screenlines.

Person trips across the Central Area Cordon showed similar increases to those in vehicle trips, between 1987 and 1988. Including the new stations across Bathurst Street, total person trips increased by about 4.0% both in the a.m. peak period inbound direction and in the p.m. peak period outbound direction. Auto and taxi person trips increased by 2.5%, transit trips by 4.5% and GO Rail trips by 6.8% in the a.m. peak period. The respective increases during the p.m. peak period were 5.9% for auto and taxi person trips, 2.6% for transit and 4.9% for GO Rail.

(b) Extended Core Cordon

While the vehicle and person trips across the Central Area Cordon showed some increases, the number of trips declined slightly across the Extended Core Cordon during the past year, suggesting that additional trips across the Central Area Cordon were mostly destined to the periphery of the Central Area. The most significant increases were for the GO Rail passengers. However, transit person trips during the p.m. peak period also showed a significant increase: they grew by 5.2% between 1987 and 1988 after declining continuously since 1985.

(c) Inner Cordons

The Downtown Core and the Downtown Cordons were not counted in 1987. Therefore, comparisons can only be made between the 1986 and 1988 flows.

When compared, the Downtown Core and the Downtown Cordons show very similar growth trends in both vehicle and person flows. Vehicle trips across both the Downtown Core and the Downtown Cordons remained relatively constant in the a.m. and p.m. peak periods, since 1986. Both cordons, however, experienced significant growth in total person trips mainly due to increases in transit and commuter rail trips.

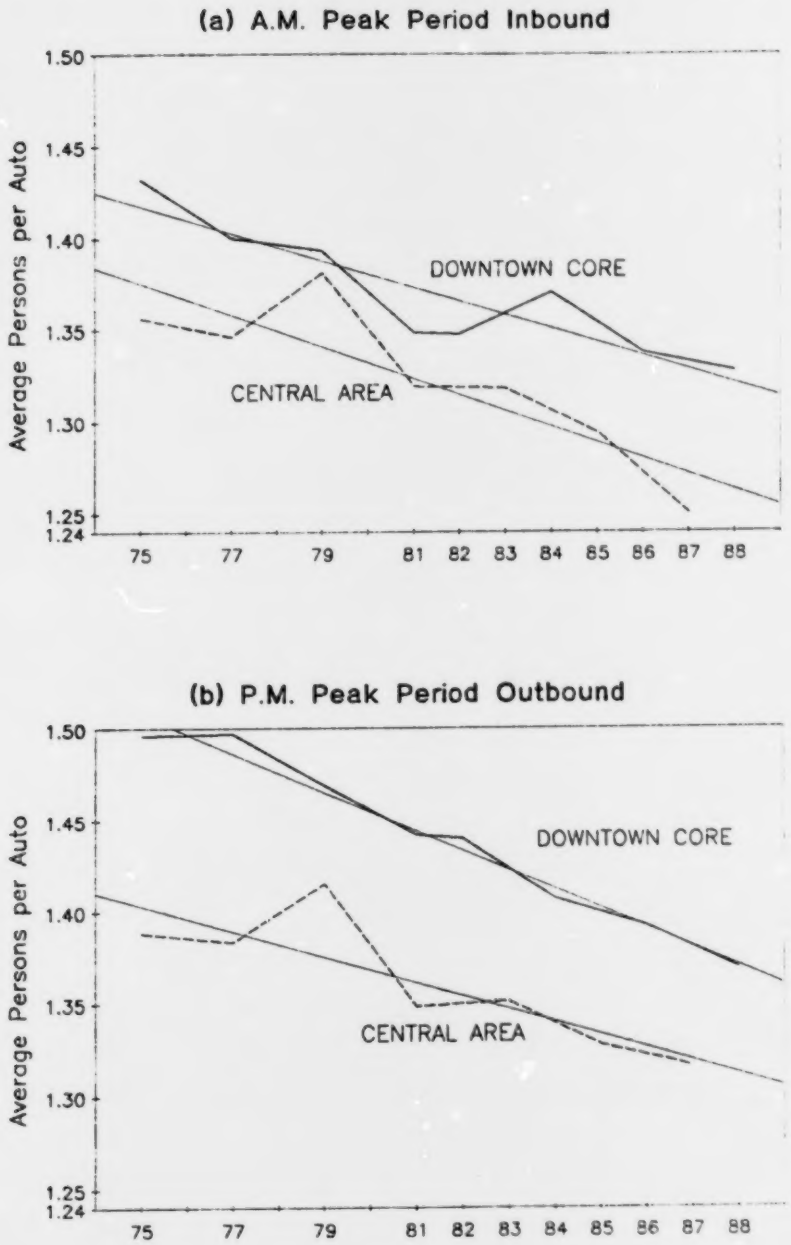
Declining auto occupancy trends continued during the a.m. and p.m. peak periods across the Downtown Core Cordon during the past year, as shown in Exhibit 13. As mentioned earlier, auto person trips were not counted across the Central Area Cordon in 1988.

II. Peak Point Subway Counts

The averages of monthly one-day subway ridership counts taken by the T.T.C. are used to estimate the annual ridership trends at key locations, during the a.m. peak hours. The average of monthly counts excludes the summer months of June, July and August. Only the a.m. peak hour ridership figures are analyzed since they have historically been higher than the p.m. peak hour ridership figures.

As in previous years, subway passengers on the Yonge and University lines in the southbound direction during the a.m. maximum hour were counted in 1988 at two locations north and south of Bloor Street, as well as on the Bloor subway in the eastbound direction just west of St. George Station and in the westbound direction just east of Yonge Station.

EXHIBIT 13: AUTO OCCUPANCY TRENDS AT CORDONS, 1975-1988



Source: Metro Cordon Count Program

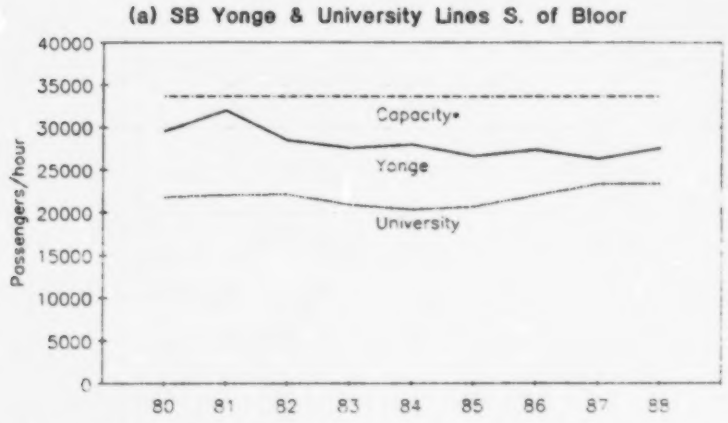
As can be seen in Exhibit 14, the average peak hour ridership figures at all the key locations counted were still below the loading standard capacity during 1988. However, it should be noted that, in practice, overcrowding of trains and congestion on platforms are often experienced, resulting in delays at stations. Also, 15-minute ridership counts during the peak hours frequently exceed the loading standard when expressed on an hourly basis. This is due to variations in monthly, daily and hourly ridership as well as uneven loading patterns and irregularities in service.

Based on the analysis of the T.T.C.'s data it can be concluded that subway ridership at peak points of the University/Spadina and Bloor subways as well as the Yonge line north of Bloor Street did not change significantly during 1988 compared to their 1987 levels. The only ridership increase experienced during the past year was on the Yonge line southbound south of Bloor Street. It increased by about 4.7% to 27,500 passengers per hour in 1988, which is 82% of the theoretical capacity of 33,600. However, this increase in 1988 was just enough to restore the same amount of decrease experienced a year earlier, which could have been related to construction activity at Bloor Station. In fact, no significant change has occurred in the Yonge subway ridership level during the past four to five years after it declined from its record high level of 31,950 passengers per hour in 1981.

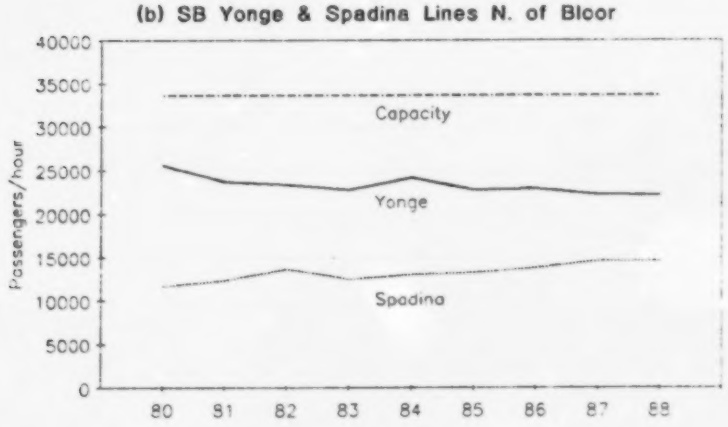
III. Surface Transit

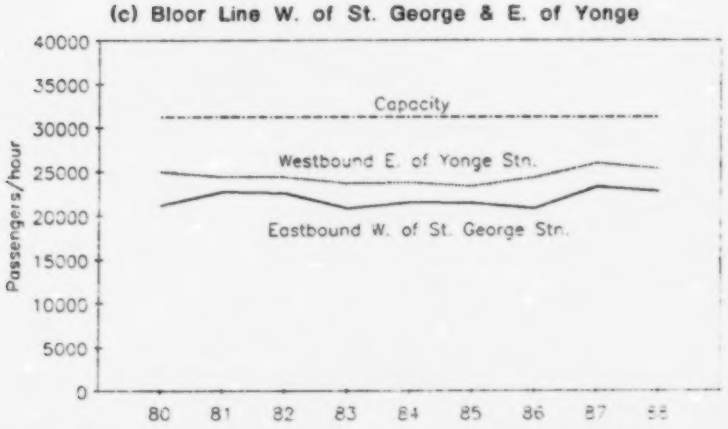
The two-hour a.m. peak period streetcar ridership and vehicles entering the Central area from the east and west, between the years 1981 and 1987 had been summarized in the previous C.A.M.P. reports, and compared to population trends in Planning Districts 6 and 2 which coincide approximately with the streetcar ridership catchment areas to the east and west respectively. Data collected across the Central Area Cordon during 1988 was used to update Exhibit 15.

EXHIBIT 14: A.M. PEAK HOUR SUBWAY COUNTS, 1980-1988



• Capacity based on existing (1988) service





Source: T.T.C. (Average of monthly counts excluding June, July, August)

Population data from the Housing Data Base, however, was not yet available for 1988, at the time when this report was prepared.

As can be seen from Exhibit 15, the streetcar ridership which showed a declining trend in 1987 was reversed to an upward trend, from both directions during 1988. It is a similar increase to that experienced during 1986. Ridership during the a.m. peak hour increased by about 500 passengers or 11% from east and about 1,000 passengers or 24% from west. The numbers of streetcars entering the Central Area also increased more or less in proportion to the ridership growth. During the 7:00 to 9:00 a.m. peak period, however, although ridership from the east and west grew by about 750 (or 11%) and about 1,500 (or 21%) respectively, the number of streetcars increased by 21% from the west but decreased by 22 vehicles or 13% from the east. Considering that the actual service schedule and number of vehicles in service did not change during 1988, this discrepancy may have resulted from various factors causing daily variations in transit operation and ridership patterns. Also, schedule irregularities often occur in streetcar services, because of traffic and weather conditions or unexpected changes in passenger demands which are beyond the T.T.C.'s control.

IV. Road System

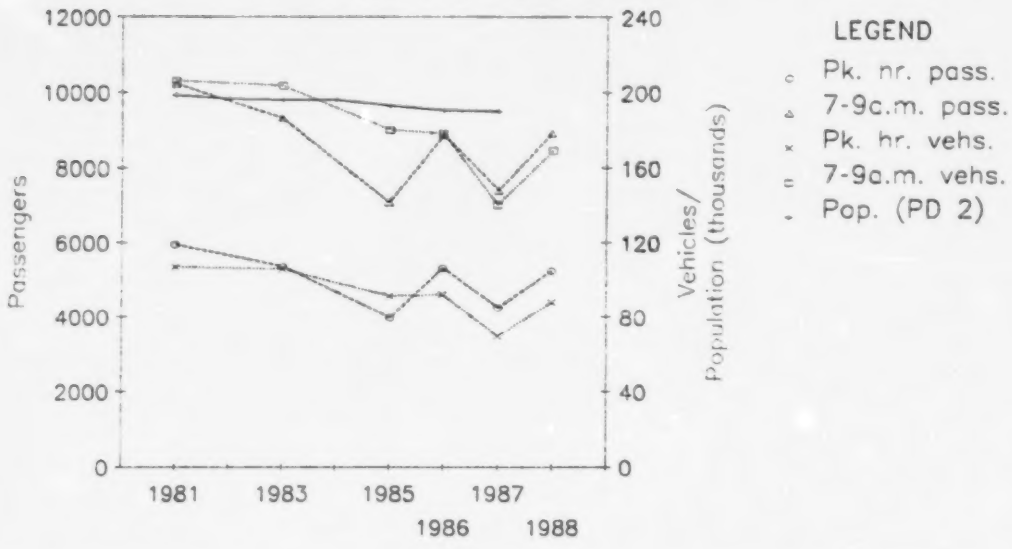
The previous C.A.M.P. report presented cordon count data for two expressway locations on the fringe of the Central Area: the Gardiner Expressway at Bathurst Street, and the Don Valley Parkway south of the Eglinton Avenue interchange.

Since 1988 was not a full cordon count year, data for the Don Valley Parkway is not available in this report. However, Exhibit 16 shows the 1988 traffic volumes on the Gardiner Expressway west of Bathurst Street. Total daily (17 hours from 6:30 a.m. to 11:30 p.m.) traffic volumes on the Gardiner Expressway in both directions in 1988 reached the highest levels for the period over the past 13 years. Close to 75,000

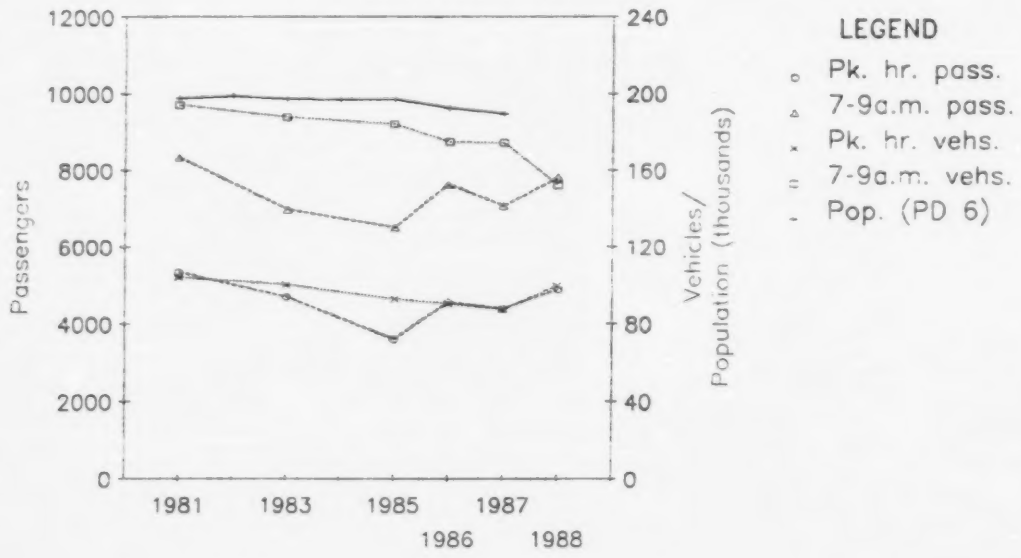
EXHIBIT 15: STREETCAR RIDERSHIP TRENDS AT CENTRAL AREA CORDON

A.M. Ridership, Vehicles and Catchment Area Population for Trips Into the Central Area

(a) From the West



(b) From the East



Source: Metro Cordon Count and Housing Data Base

EXHIBIT 16: TOTAL VEHICLE COUNTS AT SELECTED EXPRESSWAY LOCATIONS

(a) GARDINER EXPRESSWAY WEST OF BATHURST STREET

	EASTBOUND			WESTBOUND		
Year	Maximum Hour	7:00 a.m.- 10:00 a.m.	6:30 a.m.- 11:30 p.m.	Maximum Hour	3:30 p.m.- 6:30 p.m.	6:30 a.m.- 11:30 p.m.
1975	5,212	14,537	55,641	6,043	15,190	55,796
1977	5,171	14,922	57,631	5,685	16,130	58,596
1979	5,201	14,825	53,914	6,845	18,901	69,962
1981	5,211	14,386	61,918	5,210	14,994	62,434
1983	5,935	16,650	66,624	5,898	16,182	62,609
1985	5,713	16,003	69,137	5,853	16,777	68,595
1987	5,247	14,525	68,456	5,622	13,357	70,559
1988	5,763	16,280	74,930	6,346	17,239	74,331

(b) DON VALLEY PARKWAY SOUTH OF EGLINTON AVENUE

	SOUTHBOUND			NORTHBOUND		
Year	Maximum Hour	6:30 a.m.- 9:30 a.m.	6:30 a.m.- 11:30 p.m.	Maximum Hour	3:30 p.m.- 6:30 p.m.	6:30 a.m.- 11:30 p.m.
1975	5,129	14,032	50,757	5,032	13,626	52,482
1977	5,120	14,325	56,838	4,756	13,832	54,449
1979	5,164	13,909	59,476	4,549	12,811	57,486
1981	4,866	13,685	56,877	5,457	14,588	55,687
1983	5,756	15,467	65,046	4,969	13,561	46,701
1985	5,257	14,469	51,790	5,043	14,334	60,587
1987	5,232	14,212	68,131	5,697	15,072	69,972
1988	N/A	N/A	N/A	N/A	N/A	N/A

Source: Metro Cordon Count Program

vehicles were counted in each direction during the 17-hour period, representing a 9.5% increase in the eastbound and a 5.3% increase in the westbound direction during 1988. Maximum hour and peak period vehicle flows eastbound in the morning and westbound in the evening have also shown significant increases between 1987 and 1988. The highest increase was during the 3:30 to 6:30 p.m. peak period in the westbound direction. Traffic volume increased by about 3,900 vehicles or 29% along the Gardiner Expressway across Bathurst Street during the three-hour p.m. peak period. It can be seen from Exhibit 16 that vehicle volumes on the Gardiner Expressway, which declined in 1987, returned to the 1983-1985 levels in 1988. It should be noted that, when a road facility operates at or near its capacity, minor disruptions to flow may cause unstable conditions resulting in considerable fluctuations in peak period volumes.

V. GO Transit

Existing GO Rail routes serving the Greater Toronto Area are focussed on Union Station in the Central Area. Exhibit 17 shows the existing GO Train and Bus routes.

Generally, similar increases in GO Train ridership on each line were experienced during 1988 compared to increases between 1986 and 1987, although the 1987-1988 growth in total number of passengers was slightly lower than the growth a year earlier. Exhibit 18 shows the growth in passenger arrivals at Union Station by each line between 1977 and 1988, for the 7:00 to 10:00 a.m. peak period. Exhibit 19 compares GO Train passengers arriving at Union Station from each direction during the a.m. peak hour and 7:00 to 9:00 and 7:00 to 10:00 peak periods, for 1987 and 1988. Total number of passengers arriving during the three-hour period increased from 26,241 in 1987 to 28,021 in 1988 representing a 6.8% increase for all the lines combined. The loading factor based on seating capacity increased from 80% in 1987 to 85% in 1988. Highest percentage increases were from Stouffville (16%),

EXHIBIT 17: EXISTING GO TRAIN AND BUS SERVICES, (MAY, 1988)

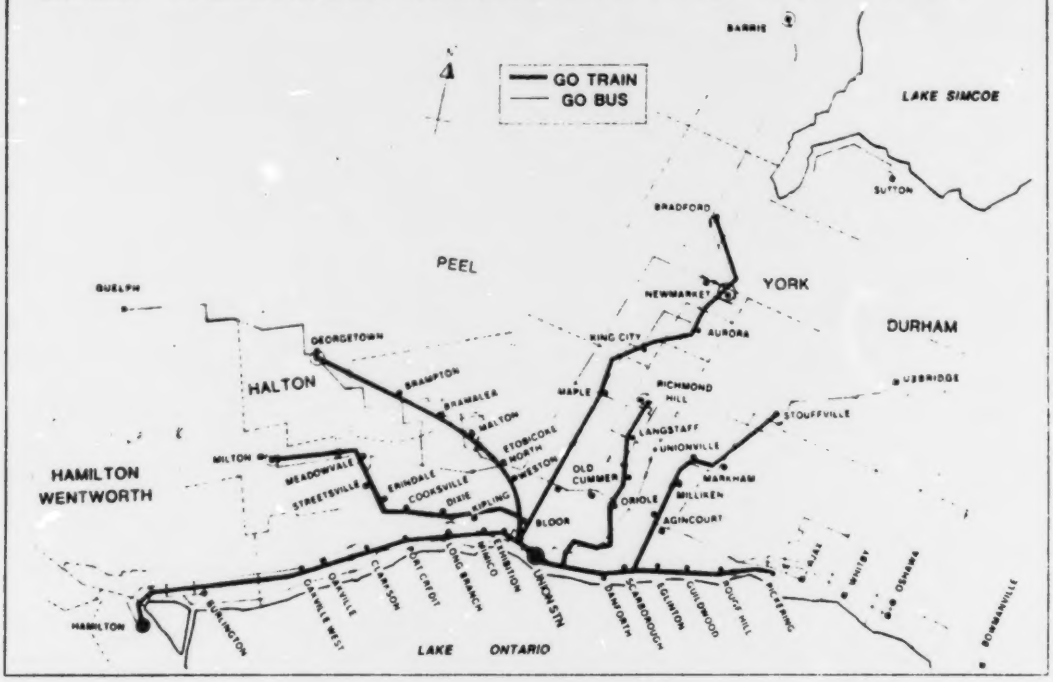
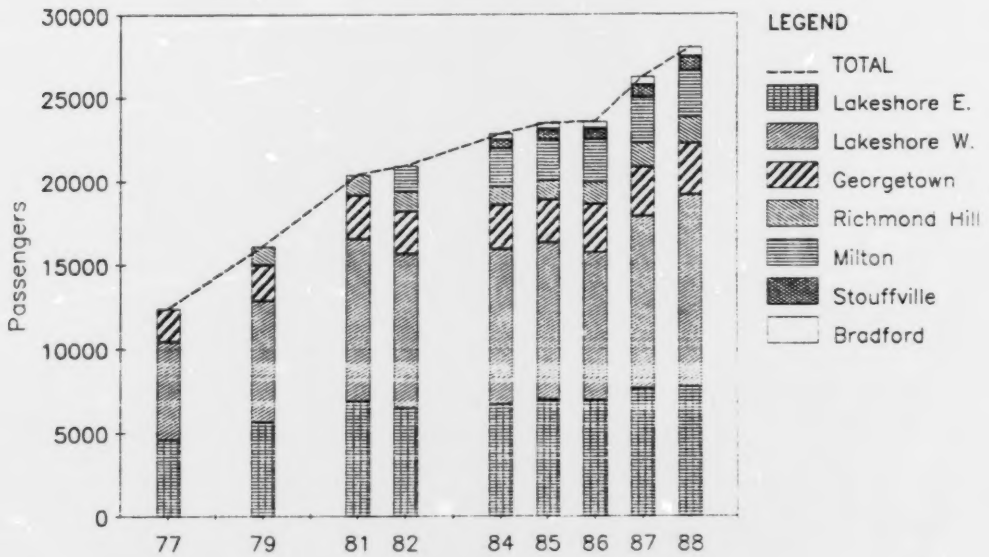


EXHIBIT 18: GO TRAIN PASSENGER ARRIVALS AT UNION STATION, 7:00-10:00 A.M.



Source: GO Transit data for Metro Cordon Count

EXHIBIT 19: A.M. PEAK HR. AND PEAK PERIOD GO TRAIN PASSENGER ARRIVALS AT UNION STATION, 1987 AND 1988

	(a) A.M. PEAK HOUR							
	1987				1988			
Line	Trains	Seats	Passengers	% Load	Trains	Seats	Passengers	% Load
Lakeshore West	7	8,550	8,150	95%	7	8,550	8,507	99%
Lakeshore East	3	4,370	4,390	100%	3	4,530	4,455	98%
Georgetown	3	2,950	2,420	82%	3	2,950	2,544	86%
Richmond Hill	2	1,300	1,050	81%	2	1,300	1,096	84%
Milton	3	3,440	2,720	79%	3	3,440	2,777	81%
Bradford	1	650	520	80%	1	650	571	88%
Stouffville	1	970	750	77%	1	970	870	90%
TOTAL	20	22,230	20,000	90%	20	22,390	20,820	93%

	(b) 7:00 to 9:00 A.M.							
	1987				1988			
Line	Trains	Seats	Passengers	% Load	Trains	Seats	Passengers	% Load
Lakeshore West	9	11,310	9,750	86%	9	11,310	10,821	96%
Lakeshore East	6	8,750	7,390	84%	6	8,910	7,449	84%
Georgetown	4	3,600	2,940	82%	4	3,600	3,039	84%
Richmond Hill	3	1,940	1,420	73%	3	1,940	1,592	82%
Milton	3	3,440	2,720	79%	3	3,440	2,777	81%
Bradford	1	650	520	80%	1	650	571	88%
Stouffville	1	970	750	77%	1	970	870	90%
TOTAL	27	30,660	25,490	83%	27	30,820	27,119	88%

	(c) 7:00 to 10:00 A.M.							
	1987				1988			
Line	Trains	Seats	Passengers	% Load	Trains	Seats	Passengers	% Load
Lakeshore West	10	12,930	10,264	79%	10	12,930	11,448	89%
Lakeshore East	7	9,400	7,620	81%	7	9,560	7,724	81%
Georgetown	4	3,600	2,940	82%	4	3,600	3,039	84%
Richmond Hill	3	1,940	1,423	73%	3	1,940	1,592	82%
Milton	3	3,440	2,717	79%	3	3,440	2,777	81%
Bradford	1	650	524	81%	1	650	571	88%
Stouffville	1	970	753	78%	1	970	870	90%
TOTAL	29	32,930	26,241	80%	29	33,090	28,021	85%

Source: GO Transit data for Metro Cordon Count Program

Richmond Hill (12%), Lakeshore West (12%) and Bradford (9%). The Lakeshore East line showed only a minor increase, in the order of 1% between 1987 and 1988 ridership levels, for the 7:00 to 10:00 a.m. peak period.

The number of trains on each route during the a.m. peak period remained the same in 1988 as in the previous year. It was pointed out in the previous C.A.M.P. report that number of passengers on the Lakeshore East route during the a.m. peak hour had exceeded the 100% loading capacity of the service in 1987. Last year the number of seats offered on this route was increased by about 160 (from 4,370 to 4,530 during the a.m. peak hour) to accommodate the additional passengers. As a result, loading capacity was not exceeded on any route during 1988. Total ridership, however, showed some increases on each route between 1987 and 1988.

3.4.2 Distribution and Modal Split of Home-to-Work Trips to P.D.1

Analysis of data from the Transportation Tomorrow Survey (T.T.S.), which was conducted in 1986 throughout the Greater Toronto Area, was partly completed during 1988. Based on the results of the analysis, travel characteristics have been summarized for Home-to-Work trips to the Central Area of Toronto (P.D.1 in this instance rather than the Central Area Cordon).

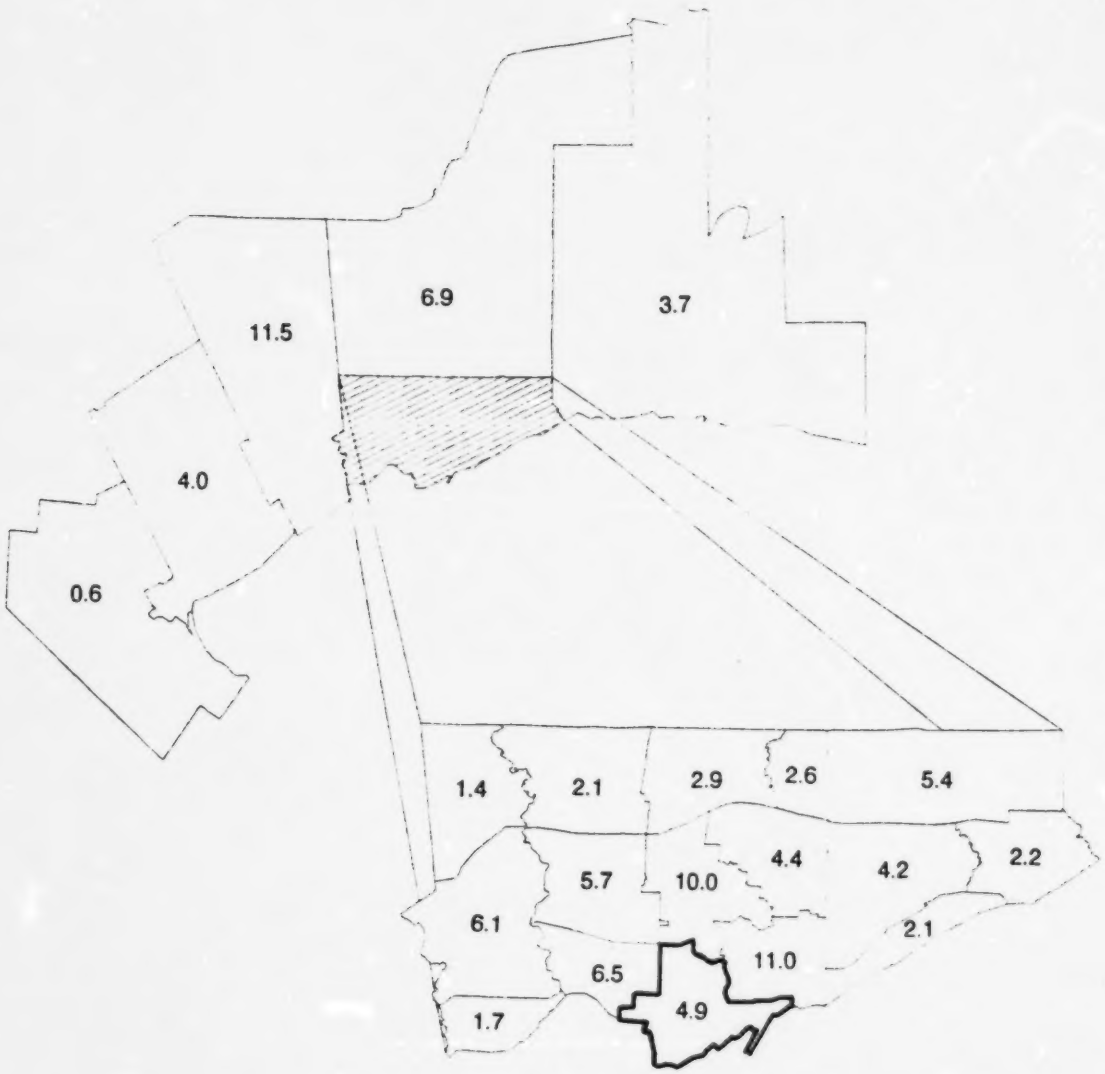
Exhibit 20 shows percent distribution of origins of Home-to-Work trips destined to P.D.1 from various Planning Districts within Metro and surrounding regions. Exhibit A.10 is a map showing Metropolitan Planning Districts and the Regions. Most work trips to P.D.1 originated from Planning Districts 4, 6 and 2 (neighbouring Districts to P.D.1), within P.D.1 itself and from the Region of Peel. These are Home-to-Work person trips starting at their origins between the hours of 6:00 to 8:59 a.m. Of all the work trips destined to P.D.1, 79.1% originated within Metro and 20.9% from surrounding regions. Exhibits 20.A, 20.B and 20.C show Percentage distributions of origins for auto, transit (excluding GO Train) and GO Train trips respectively.

EXHIBIT 20: PERCENTAGE DISTRIBUTION,BY ORIGIN,OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS TO P.D.1 (TOTAL PERSON TRIPS)

Metropolitan Toronto - 79.1 %

Source: Transportation Tomorrow Survey (1986)

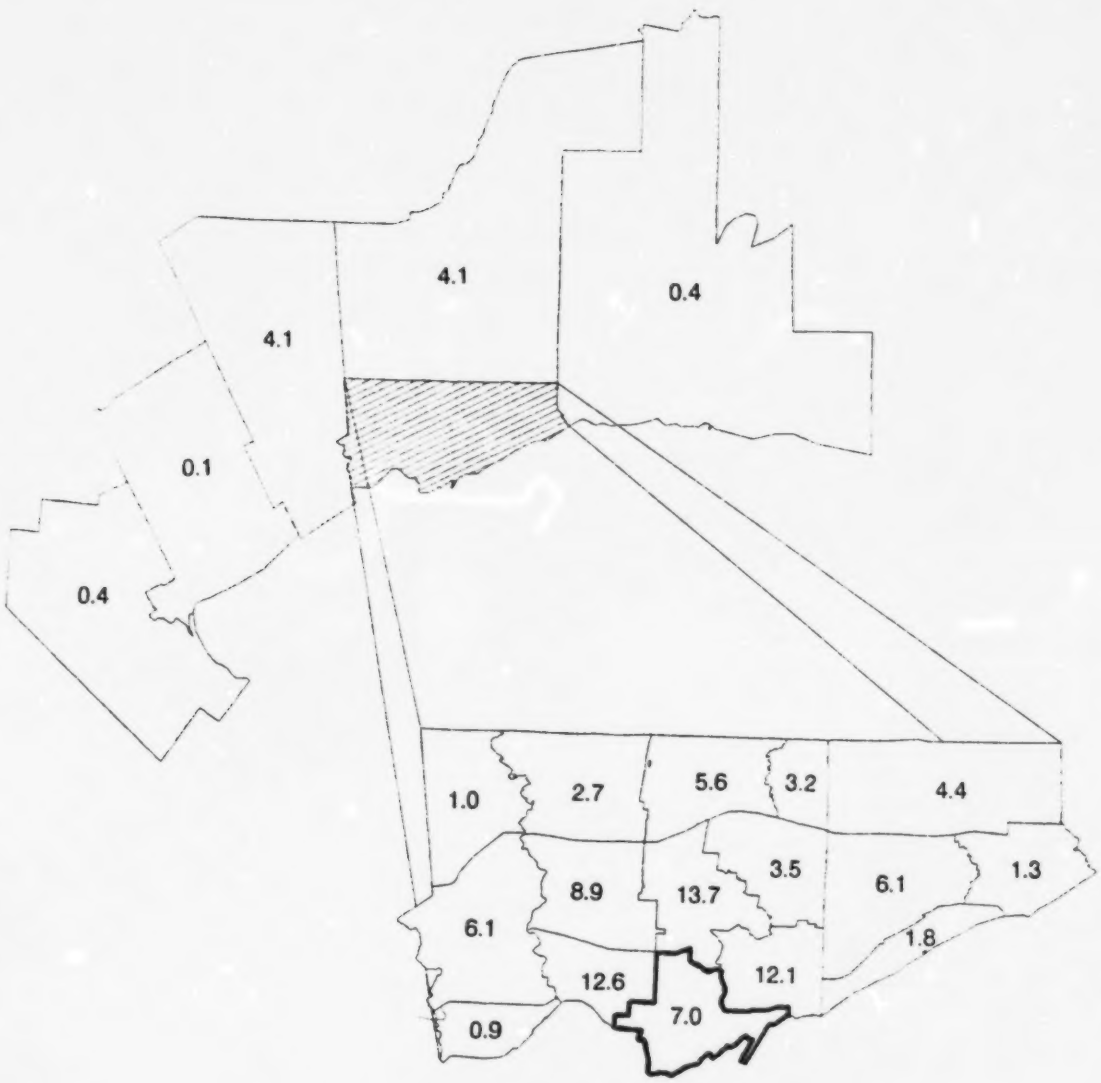
EXHIBIT 20.A: PERCENTAGE DISTRIBUTION,BY ORIGIN,OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS TO P.D.1 (AUTO PERSON TRIPS)



Metropolitan Toronto - 73.2 %

Source: Transportation Tomorrow Survey (1986)

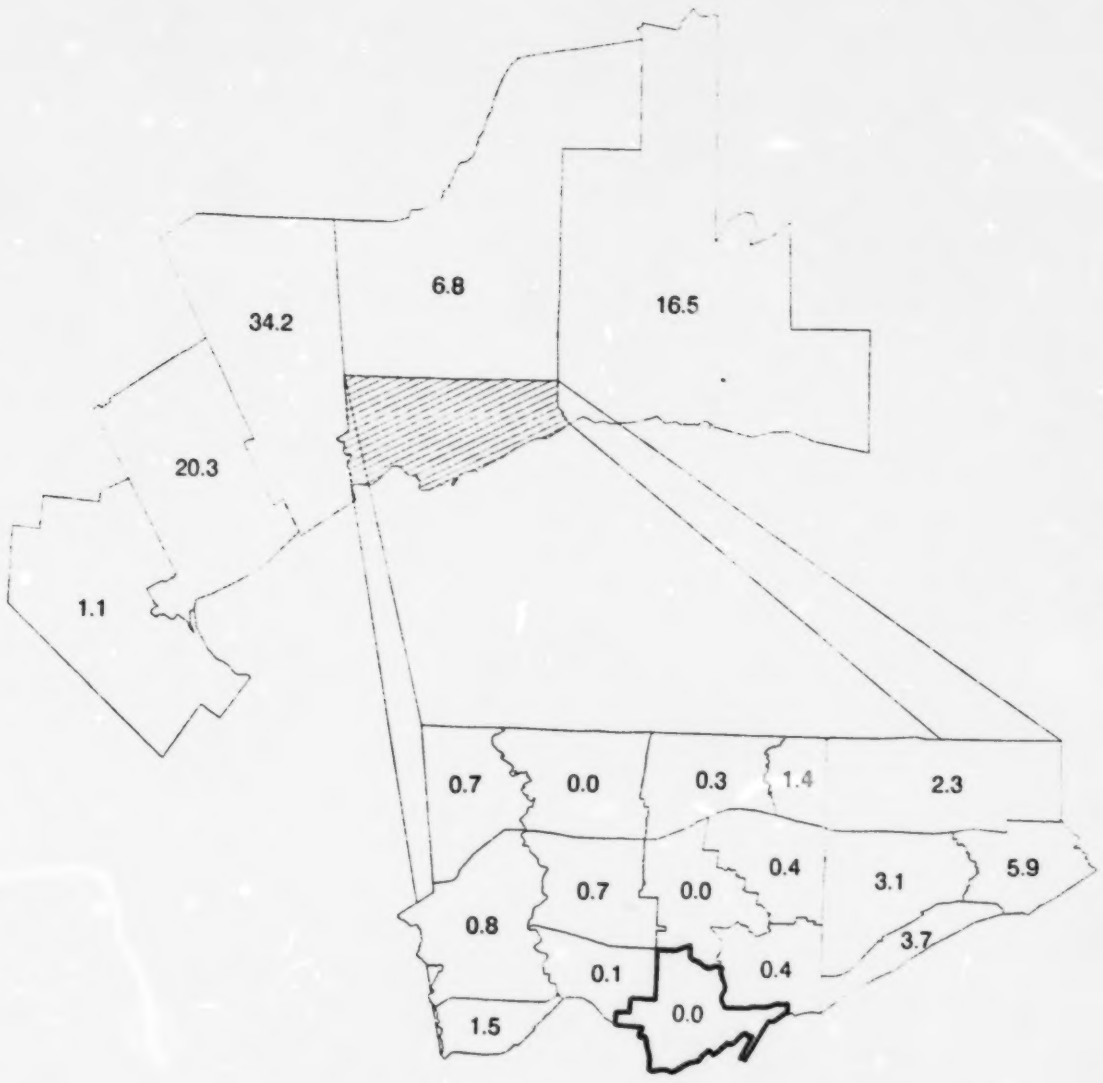
EXHIBIT 20.B:PERCENTAGE DISTRIBUTION,BY ORIGIN,OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS TO P.D.1 (TRANSIT TRIPS-EXCL.GO RAIL)



Metropolitan Toronto - 90.8 %

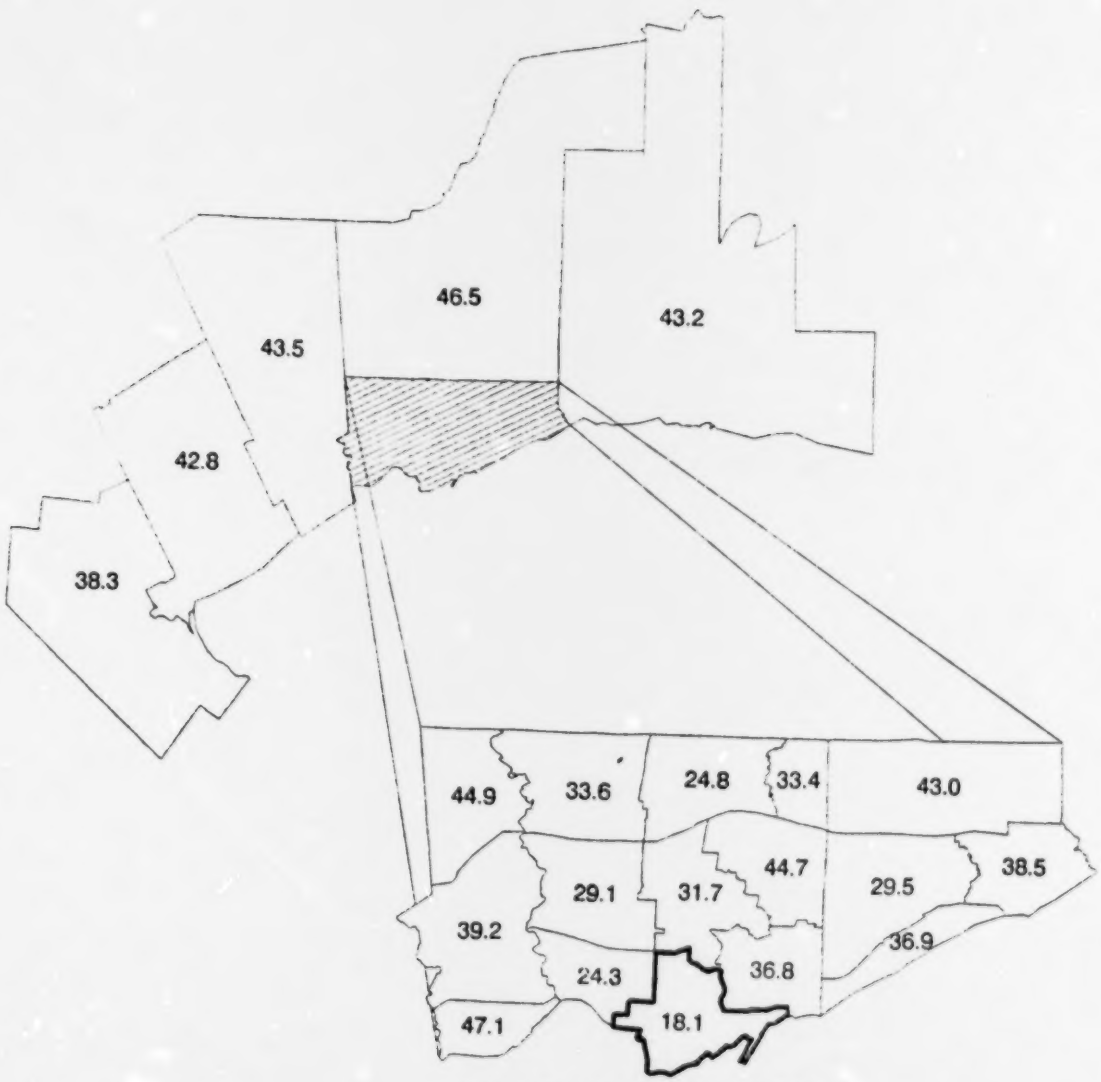
Source: Transportation Tomorrow Survey (1986)

EXHIBIT 20.C: PERCENTAGE DISTRIBUTION,BY ORIGIN,OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS TO P.D.1 (GO RAIL TRIPS)



Source: Transportation Tomorrow Survey (1986)

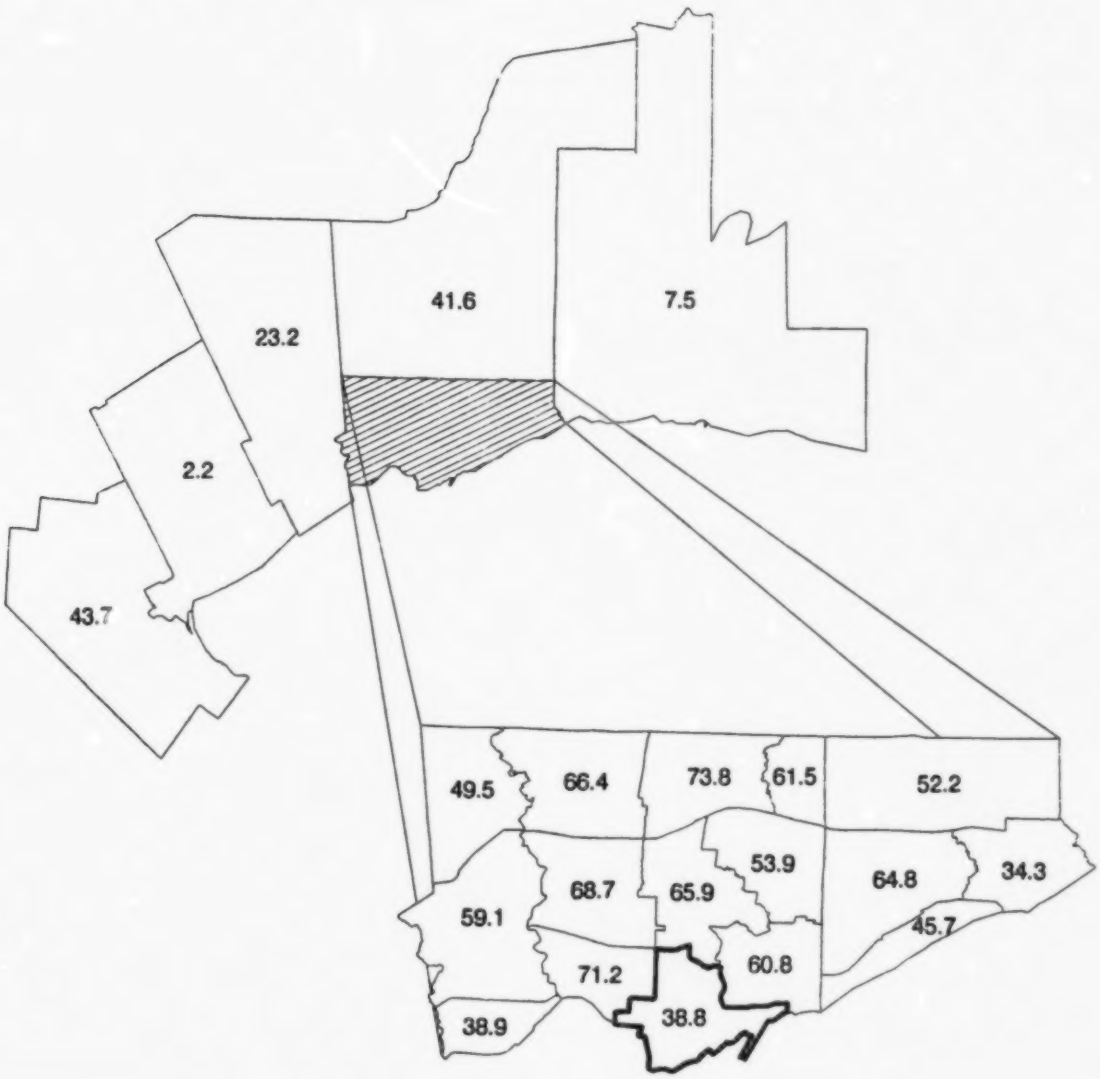
EXHIBIT 20.D: AUTO MODAL SPLIT PERCENTAGE OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS FROM EACH DISTRICT TO P.D.1



Metropolitan Toronto Avg.- 31.7 %

Source: Transportation Tomorrow Survey (1986)

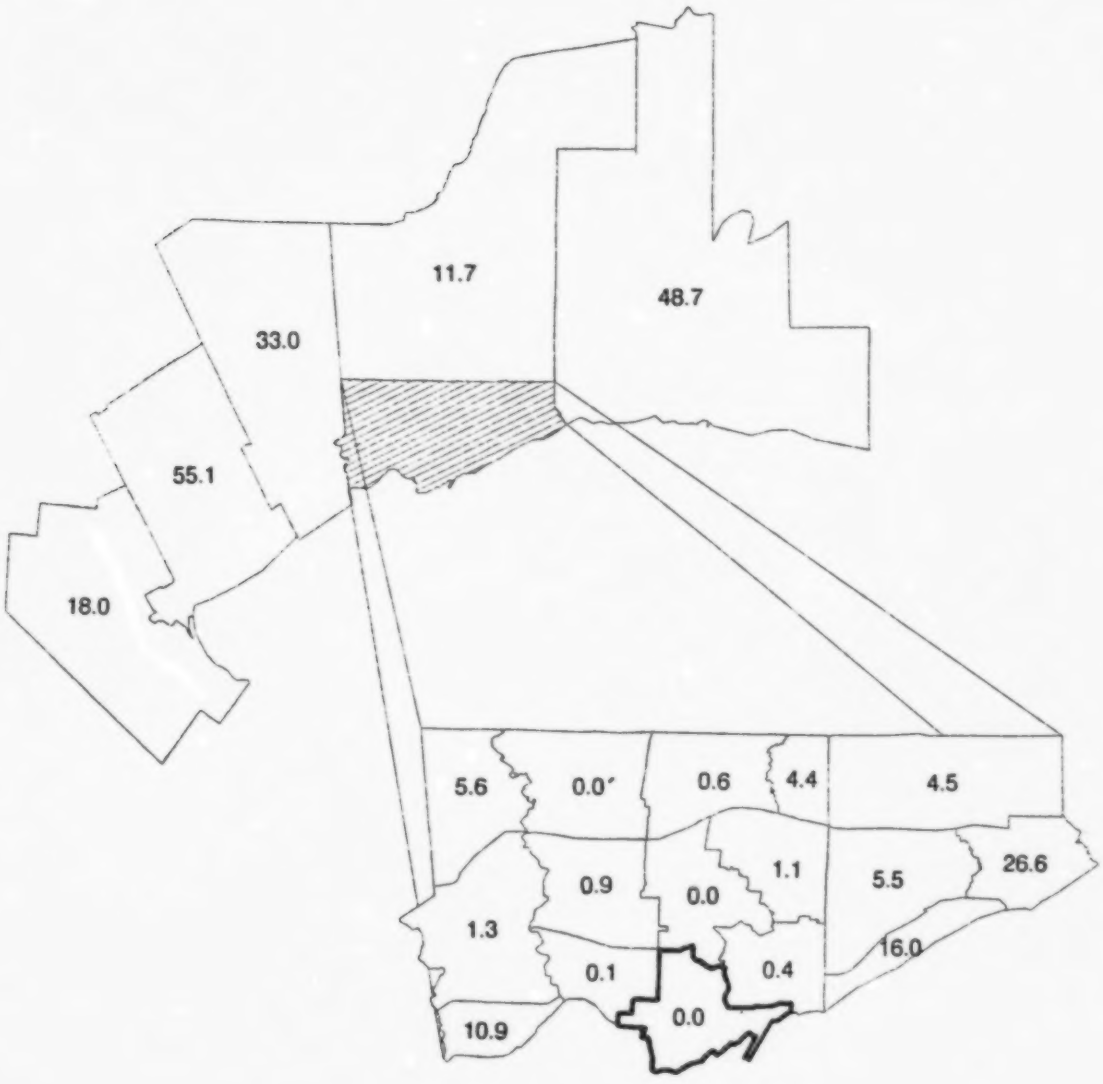
EXHIBIT 20.E: TRANSIT (EXCL.GO RAIL) MODAL SPLIT PERCENTAGE OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS FROM EACH DISTRICT TO P.D.1



Metropolitan Toronto Avg.- 59.5 %

Source: Transportation Tomorrow Survey (1986)

EXHIBIT 20.F: GO RAIL MODAL SPLIT PERCENTAGE OF A.M. PEAK PERIOD HOME-TO-WORK TRIPS FROM EACH DISTRICT TO P.D.1



Metropolitan Toronto Avg.- 2.3 %

Source: Transportation Tomorrow Survey (1986)

Percentages of auto, transit (excluding GO Train) and GO Train trips destined to P.D.1 from various districts are illustrated in Exhibits 20.D, 20.E and 20.F respectively. Within Metropolitan Toronto 31.7% of all the Home-to-Work trips destined to P.D.1 are auto trips, 59.5% transit (excluding GO Train) and 2.3% GO Train. For all the Home-to-Work trips originating within and outside Metro, these percentages are 34.2% auto, 51.8% transit (excluding GO Train) and 8.7% GO Train. Of the work trips with both origin and destination within P.D.1, 37.8% are walk trips, 5.3% "other" modes including bicycle, motorcycle and taxi, 18.1% are by auto and 38.8% by transit. The City of Toronto's 1986 Central Area Residents Survey reported that 38.0% walked to work in the Central Area in the summer, 32.4% in the winter (T.T.S. was conducted in the Fall).

A detailed tabulation of a.m. peak period Home-to-Work trips to P.D. 1 from various zones by various modes is presented in Exhibit A.11.

The 1981 and 1986 Censuses collected information on place of work by place of residence, which is somewhat different from the actual home to work trips made on a given day, as collected by the T.T.S. Ideally, a comparison between the 1981 and 1986 Census data would give an indication of trends, while comparison of 1986 Census with the T.T.S. would highlight any inconsistencies due to the different survey methodologies.

Unfortunately, 1986 Census place of work data was not available at the time this report was prepared; nevertheless, Exhibits 21, 21.A and 21.B show comparisons of the distribution by home end of P.D.1 workers from the 1981 Census with the origin distribution of 24-hour home to work trips to P.D.1 from the T.T.S. Since absolute numbers are not directly comparable, only percentage distributions are shown.

Given the differences between the two surveys, the apparent changes are quite consistent with demographic trends over the 5-year period. The percentage of P.D.1 workers from P.D.'s 15, 16 (eastern and northeastern

EXHIBIT 21: COMPARISON OF PERCENTAGES OF 24-HOUR HOME-TO-WORK TRIPS TO P.D.1 ORIGINATING WITHIN METRO AND REGIONS (1981 CENSUS vs. 1986 T.T.S.)

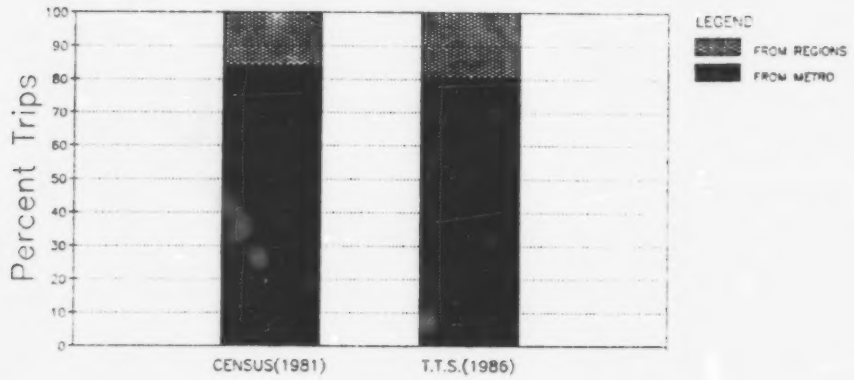


EXHIBIT 21.A: PERCENT DISTRIBUTION,BY ORIGIN,OF 24-HOUR HOME-TO-WORK TRIPS TO P.D.1 FROM EACH DISTRICT WITHIN METRO (1981 CENSUS vs. 1986 T.T.S.)

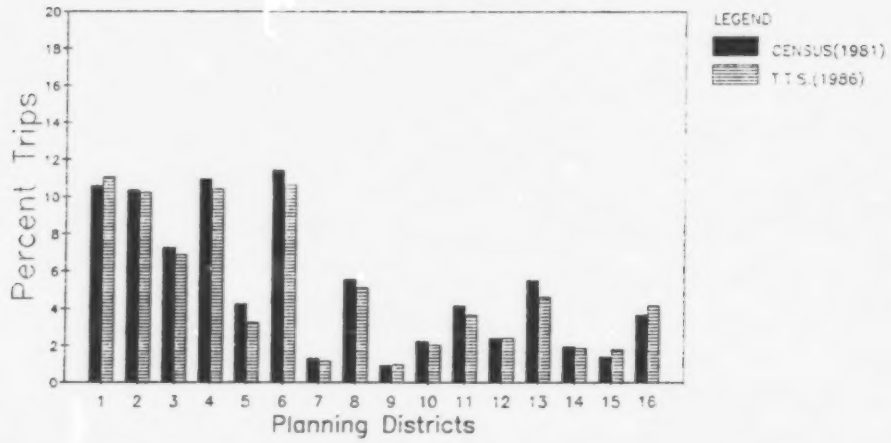
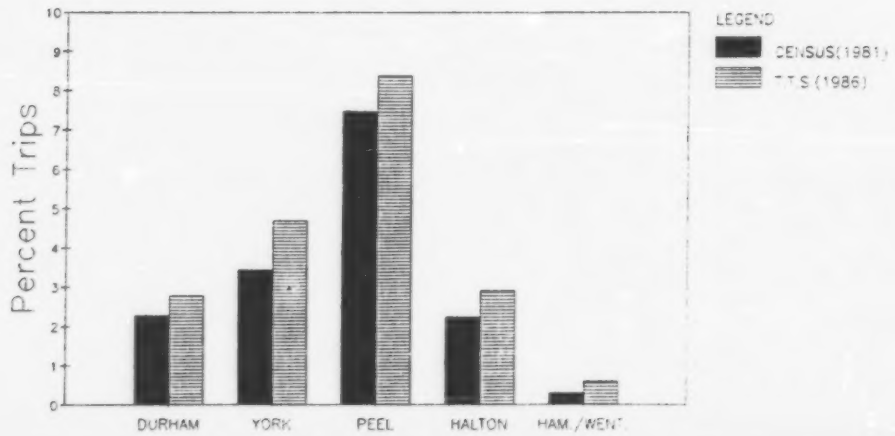


EXHIBIT 21.B: PERCENT DISTRIBUTION,BY ORIGIN,OF 24-HOUR HOME-TO-WORK TRIPS TO P.D.1 FROM EACH REGION (1981 CENSUS vs. 1986 T.T.S.)



Scarborough) and P.D.1 itself, as well as from the surrounding Regions increased, reflecting population (and hence labour force) increases; other P.D.'s in Metro with stable or declining population showed a reduction in the percentage of P.D.1 work trips. The 1981 Census indicated that 15.8% of P.D.1 employees lived outside Metro, while the T.T.S. showed 19.4% of 24-hour work trips to P.D.1 originating outside Metro. Availability of the 1986 Census data will facilitate more thorough comparisons, which will be included in the next C.A.M.P. report.

3.4.3 Off-Street Parking

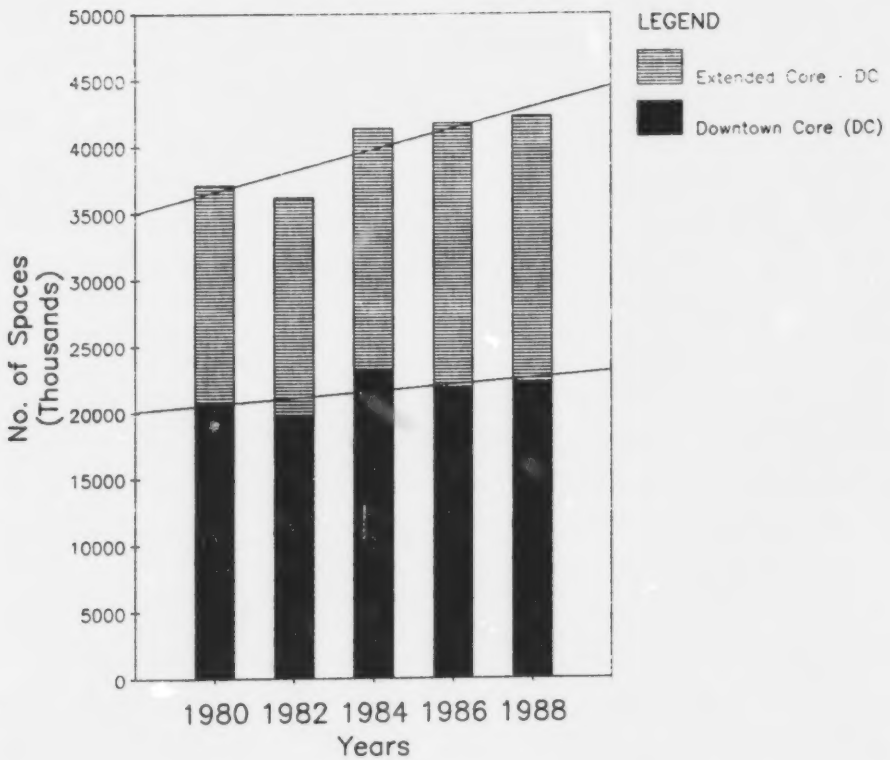
The City of Toronto Public Works Department has collected data on the amount of off-street parking available in the Central Area every two years since 1980.

Based on the results of the off-street parking inventory surveys, the supply of non-residential off-street parking in areas corresponding to the Downtown Core and Extended Core has been summarized for the 1980-1988 period. Exhibit 22 tabulates the number of parking spaces available within the Downtown Core and Extended Core Cordons. Variation of non-residential parking supply within these cordons between 1980 and 1988 is illustrated in Exhibit 23. The number of parking spaces within the Downtown Core and Extended Core Cordons declined to their minimum in 1982, then showed moderate increases. The number of available spaces increased by about 7% within the Downtown Core and 14% within the Extended Core Cordons, from 1980 to 1988. However, most of the increase took place between 1982 and 1984. During the 1984-1988 period, the number of spaces increased by only 2% within the Extended Core while decreasing by about 4% within the Downtown Core area. Some of the decrease is due to new construction on formerly vacant sites.

EXHIBIT 22: OFF-STREET NON-RESIDENTIAL PARKING INVENTORY IN THE DOWNTOWN CORE AND EXTENDED CORE

Year	Downtown Core	Extended Core
1980	20,797	37,157
1982	19,765	36,234
1984	23,216	41,383
1986	21,874	41,762
1988	22,263	42,310

EXHIBIT 23: PARKING SPACES, 1980-1988 (NON-RESIDENTIAL)



3.4.4 Speed/Delay Study

The Speed/Delay Study was the main addition to the C.A.M.P. in 1988.

Average auto travel speeds and travel times were measured for various sections of major arterials, between Spadina Avenue and Parliament Street in the east-west direction; and between Front Street and Bloor Street/Dupont Street/Davenport Road in the north-south direction.

Average auto travel speeds obtained from the speed/delay analysis for sections of major arterial roads in each direction, within the Central Area, are schematically shown in Exhibits 24 through 29 for the a.m. peak, p.m. peak and off-peak periods. Average travel times and speeds along each route are summarized in Exhibits A.12 and A.13.

As can be seen from the Exhibits, average travel speeds were generally higher during the a.m. peak periods compared to p.m. peak and off-peak periods. Average speeds are frequently higher during the peak periods because of the enforcement of parking prohibitions and traffic signal cycles adjusted to maximize intersection capacities. During the off-peak periods, extensive on-street parking and loading/unloading activities significantly reduce the available road capacity and the travel speed becomes low. In the peak periods, travel speeds are generally higher in the a.m. than in the p.m. since there are relatively few bottlenecks for traffic entering the Central Area. In the p.m., auto volumes are higher due to non-work related trips and bottlenecks are encountered as traffic leaves the Central Area by the expressways and major arterials.

Average speeds were higher on the north-south routes than in the east-west directions. The highest speeds were recorded along University Avenue: 34 km./h. during the a.m. peak hour, 25-26 km./h. during the p.m. and 23-24 km./h. during the off-peak periods. In the east-west direction, within the area between Spadina Avenue and Parliament Street, Harbord/Wellesley Streets were fastest in the morning (20-22 km./h.) and Richmond/Adelaide Streets in the evening peak periods (19-22 km./h.).

EXHIBIT 24: AVERAGE AUTO TRAVEL SPEEDS, EAST-WEST DIRECTION (A.M. PEAK PERIOD)

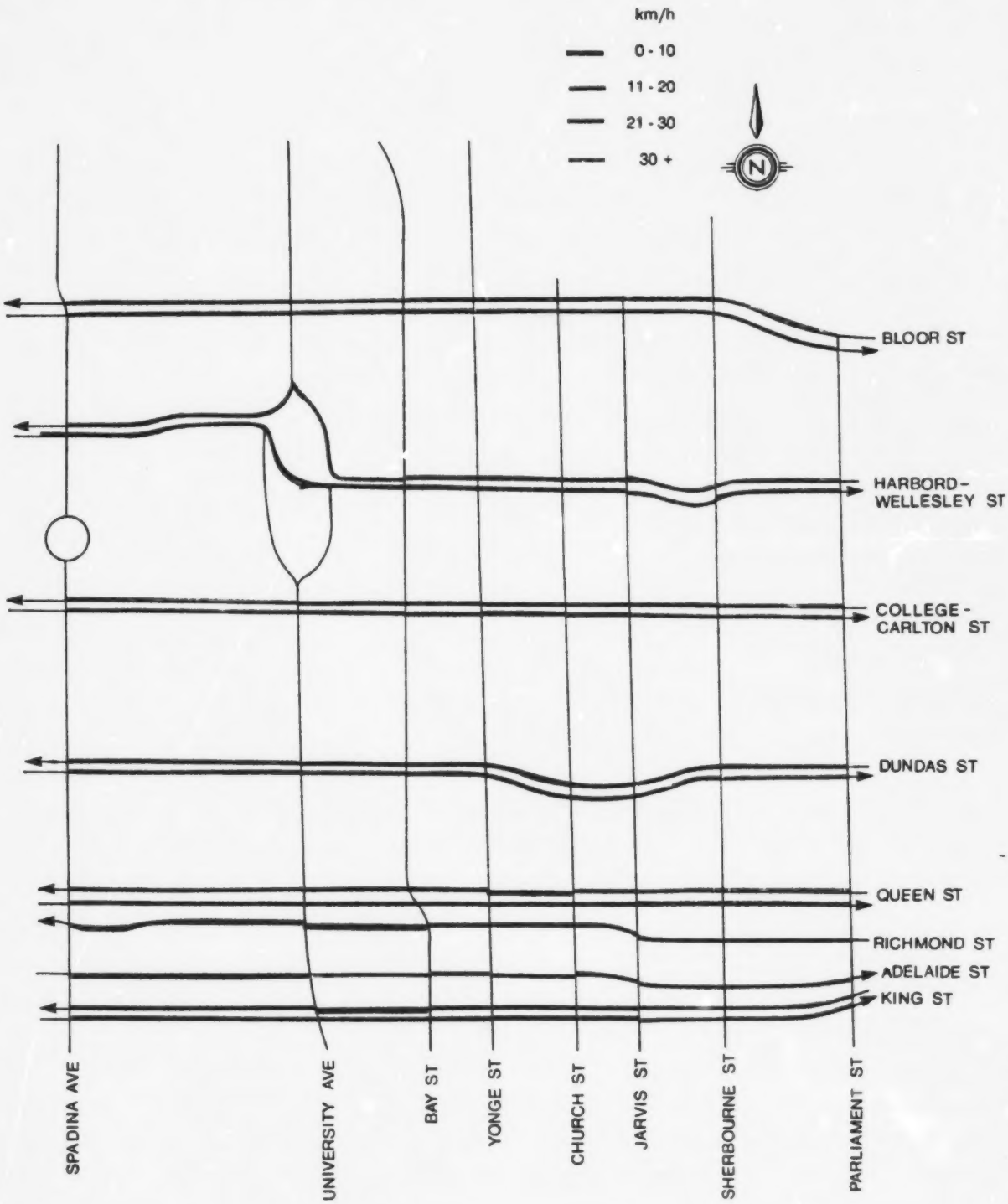


EXHIBIT 25: AVERAGE AUTO TRAVEL SPEEDS, EAST-WEST DIRECTION (P.M. PEAK PERIOD)

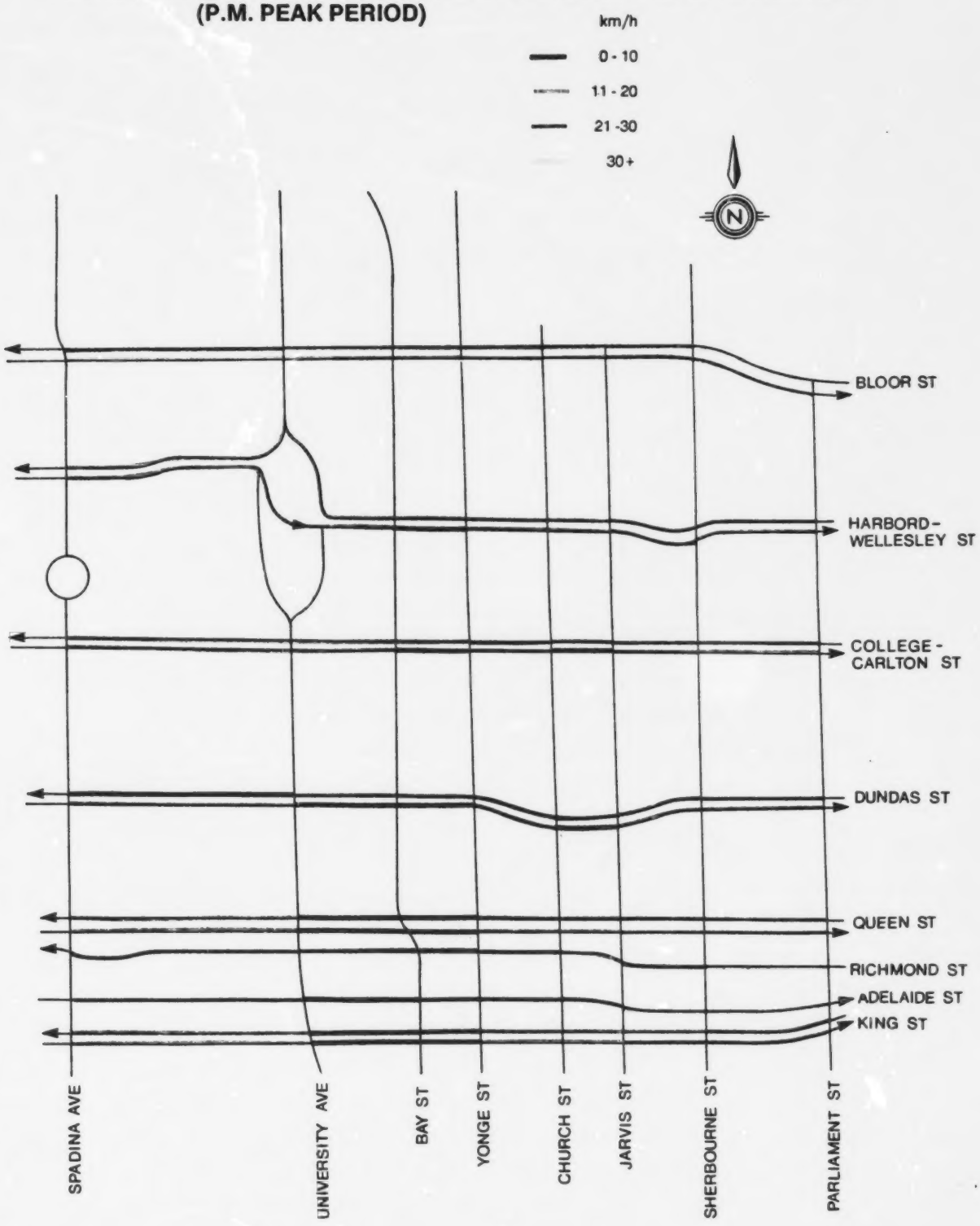


EXHIBIT 26: AVERAGE AUTO TRAVEL SPEEDS, EAST-WEST DIRECTION (OFF-PEAK PERIOD)

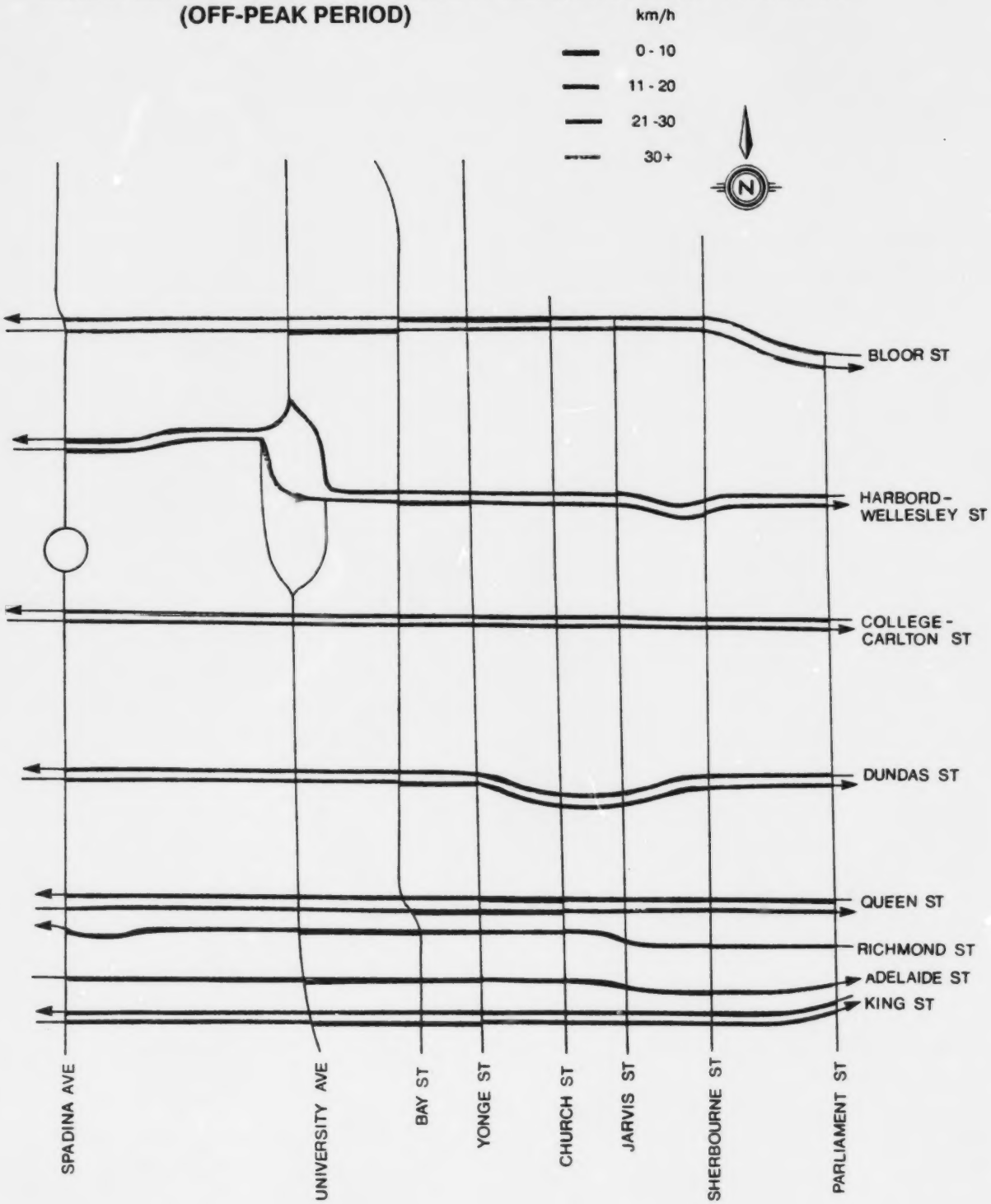


EXHIBIT 27: AVERAGE AUTO TRAVEL SPEEDS, NORTH-SOUTH DIRECTION (A.M. PEAK PERIOD)

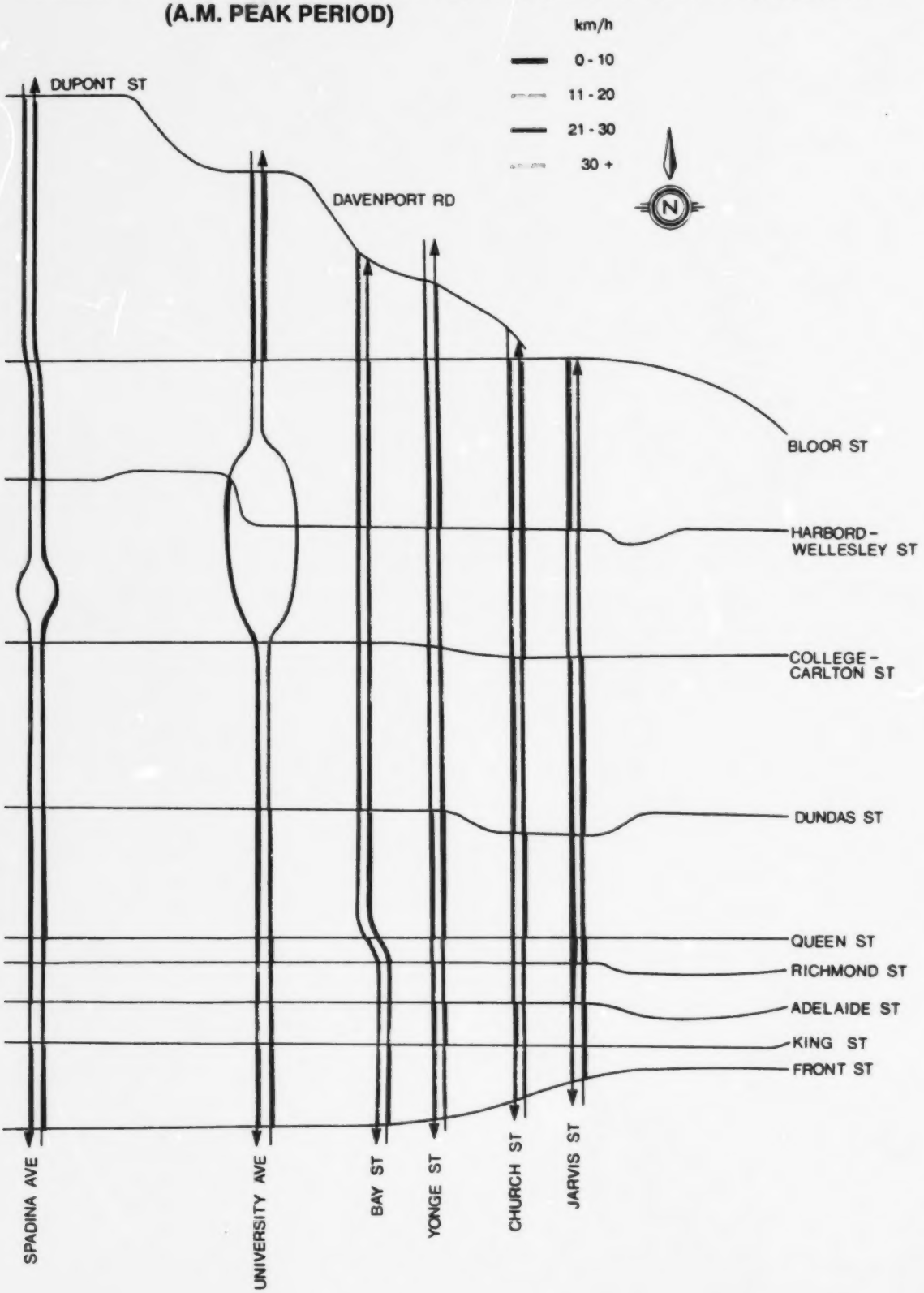


EXHIBIT 28: AVERAGE AUTO TRAVEL SPEEDS, NORTH-SOUTH DIRECTION (P.M. PEAK PERIOD)

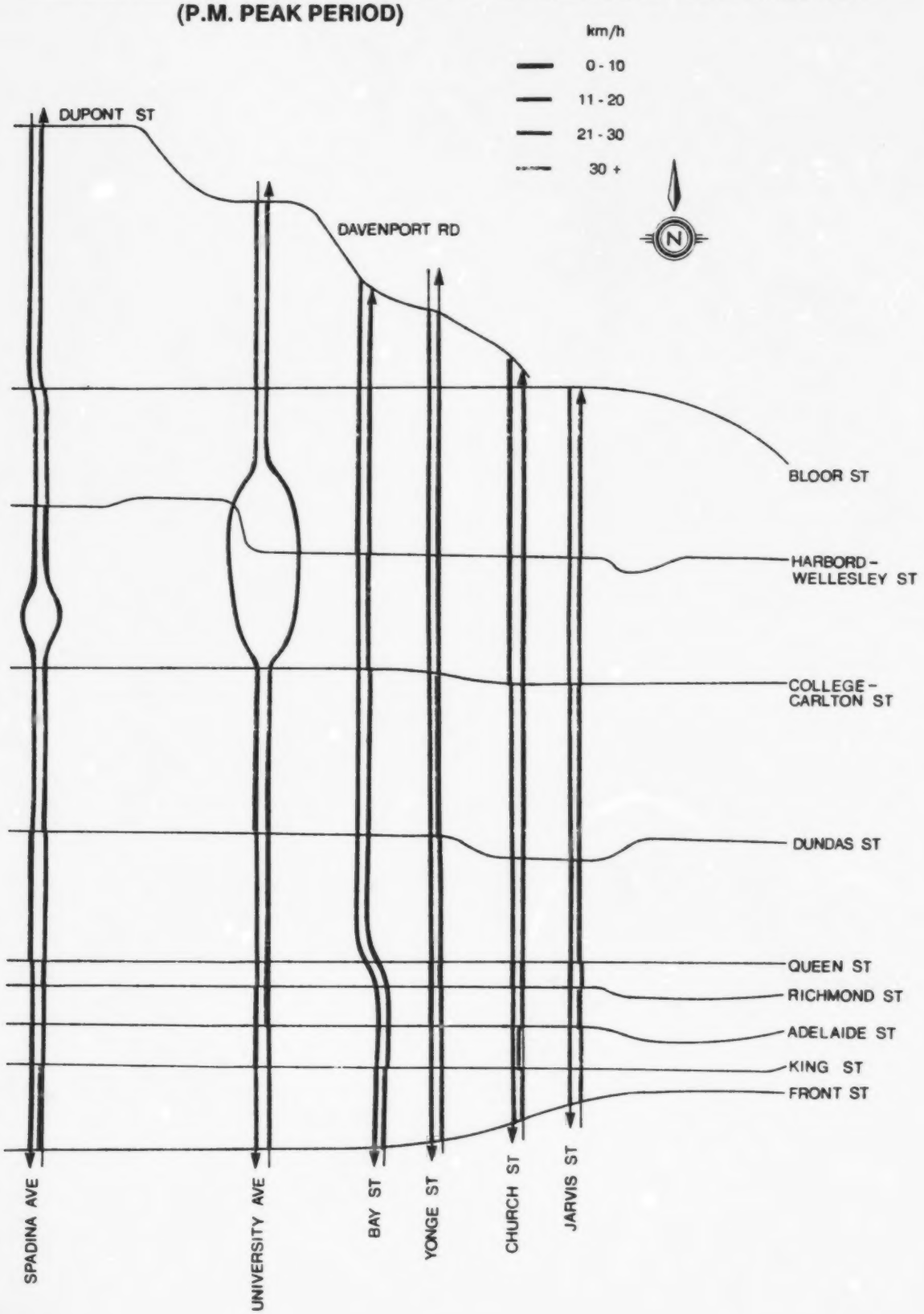
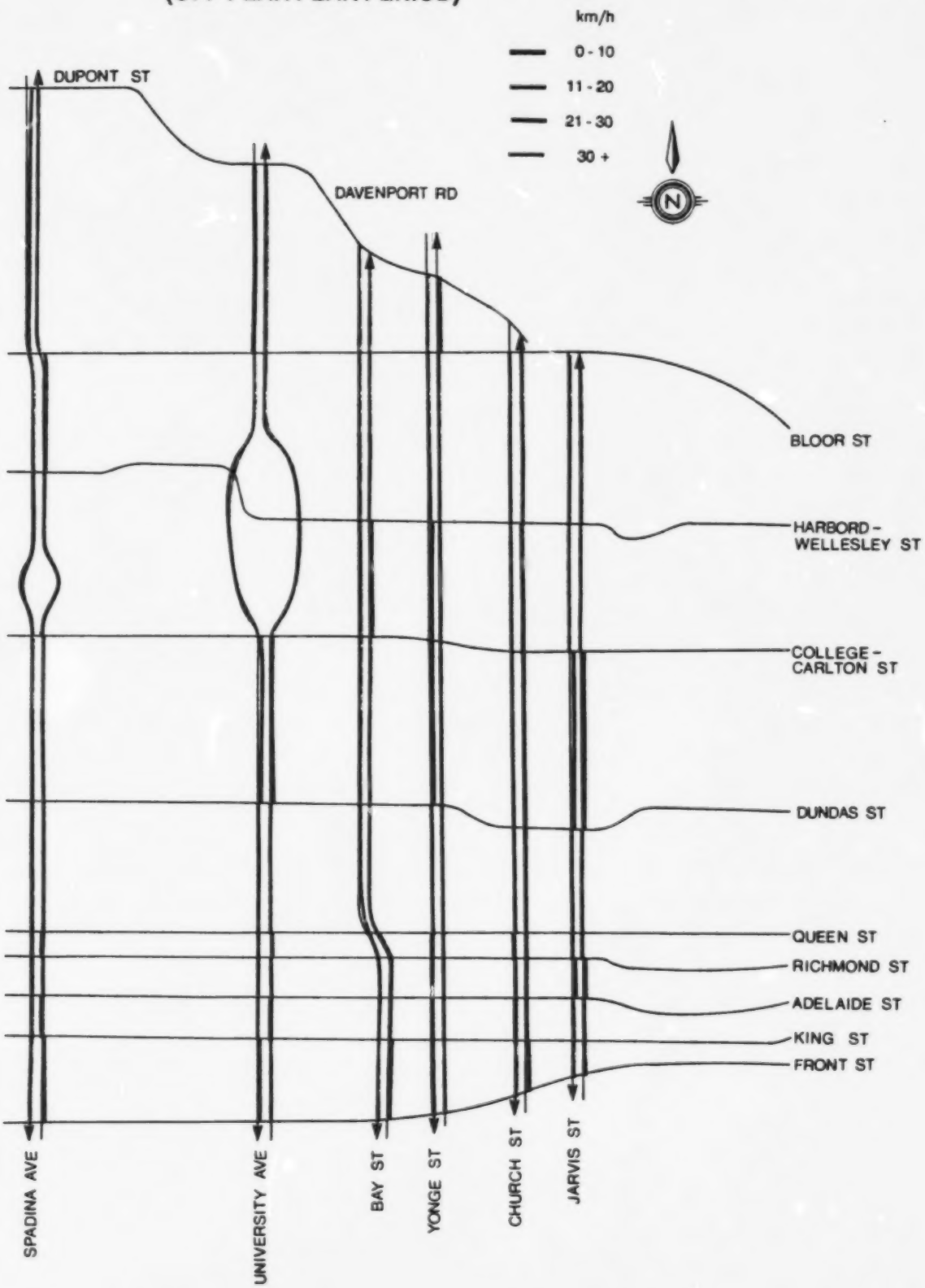


EXHIBIT 29: AVERAGE AUTO TRAVEL SPEEDS, NORTH-SOUTH DIRECTION (OFF-PEAK PEAK PERIOD)



3.5 Development and Transportation Proposals for the Central Area

3.5.1 Current Development Proposals

The list of major Central Area office developments which are either under construction or at various approval stages, as of March 31, 1989, has been compiled from data provided by the City of Toronto. Exhibit 30 lists the new office floor areas (excluding space in previously existing buildings), and estimated additional office employment. Employment estimates were based on an assumed F.S.W. ratio of 25.0 square metres per employee and a 6 percent vacancy rate was taken into account.

Exhibit 30 shows that there was approximately 360,000 sq.m. of office space under construction as of the end of March, 1989. Almost one third of the office space in those developments under construction was accounted for by B.C.E. Phase I. In addition, approximately 1,840,000 sq.m. of office space has either received City Council approval or was at various stages of the approval process by March 31, 1989. Precincts 1, 3 and 5 as well as remaining part of Railway Lands are not included in the above totals as they are yet at "proposal" stages and no formal applications for these developments have been made to the City of Toronto. These proposed new developments, if approved, would add another 940,000 sq.m. of office space to the Central Area.

A grand total of approximately 3,140,000 sq.m. of new office space is committed or has been actively proposed as of March 31, 1989. As a result, as many as 118,000 office employees are estimated to occupy this space. This does not necessarily mean, however, a net increase in employment in the Central Area since some office employees would transfer from older buildings, and the Central Area employment in some other sectors may decline while the office employment is growing. Provision of more office space may also result in higher vacancy rates.

EXHIBIT 30: MAJOR DEVELOPMENTS UNDER CONSTRUCTION OR IN APPROVAL STAGES AS OF MARCH 31,1989

Stage	Development	Office Space (Sq.m.)	Estimated Employment *
Recently Completed **	CROWN LIFE PH1 (175 BLOOR E)	29,200	1100
	SCOTIA PLAZA (44 KING W)	155,800	5860
	TOTAL	185,000	6,960
Under Construction and/or Building Permits Issued	1. 100 (90,94) YONGE ST	21,100	795
	2. 655 BAY ST	27,900	1,050
	3. YONGE-RICHMOND CTR (151 YONGE)	28,300	1,065
	4. 1 TORONTO ST (92 KING E)	30,200	1,135
	5. WATERPARK PL PH2 (10 BAY)	30,100	1,130
	6. CONFED SQ PH2 (20 RICHMOND E)	38,300	1,440
	7. YONGE-ADELAIDE PH1 (1 ADELAIDE E)	35,600	1,340
	8. B.C.E. PH1 (26 FRONT W)	107,500	4,040
	9. 74 YORK ST	18,700	705
	10. 720 BAY ST	21,900	825
	TOTAL	359,600	13,525
Approved by City Council and/or Development Agreement Signed	11. B.C.E. PH2 (26 FRONT W)	112,200	4,220
	12. TORONTO STOCK EXCHANGE (230 BAY)	46,300	1,740
	13. 31 BLOOR ST E	27,200	1,025
	14. EATON CTR PH1 (250 YONGE)	76,000	2,860
	15. 444 YONGE ST	46,100	1,735
	16. 434,444 UNIVERSITY AVE	20,500	770
	17. WORLD TRADE CTR PH2 (60 HARBOUR)	50,000	1,880
	18. CROWN LIFE PH2 (227 BLOOR E)	24,900	935
	TOTAL	403,200	15,165
In Approval Stages/ Development Agreement Pending	19. YONGE-ADELAIDE CTR PH2	19,300	725
	20. PRECINCT 7 (CN EXPRESS)	42,700	1,605
	21. BAY-ADELAIDE CTR (28 ADELAIDE W)	169,700	6,380
	22. EATON CTR PH2 (1 DUNDAS W)	138,600	5,210
	23. 43 (33) GERRARD ST W	32,800	1,235
	24. C.B.C. (230 FRONT W)	169,800	6,385
	25. WORLD TRADE CTR PH3 (20 HARBOUR)	101,200	3,805
	26. PRECINCT A (STADIUM)	164,300	6,180
	TOTAL	838,400	31,525
Approval Process	27. RICH-ADELAIDE CTR (22 SHEPPARD ST)	38,000	1,430
	28. 188 UNIVERSITY AVE	49,700	1,870
	29. 185 YONGE ST	31,100	1,170
	30. METRO HALL (255 KING W)	121,200	4,555
	31. 717-731 YONGE ST	36,600	1,375
	32. 620 UNIVERSITY AVE	20,700	780
	33. CONFEDERATION LIFE (100 HUNTLEY ST)	45,900	1,725
	34. 250 WELLINGTON ST	24,300	915
	35. 500 LAKESHORE BLVD W	60,200	2,265
	36. PRECINCTS 8 & 9	170,600	6,415
	TOTAL	598,300	22,500
Proposal/ No Application	37. PRECINCTS 1,3,5	684,000	25,720
	38. REST OF RAILWAY LANDS	256,800	9,655
	TOTAL	940,800	35,375
GRAND TOTAL		3,140,300	118,090

Source: City of Toronto, Planning and Development Department

* FSW ratio of 25.0 sq.m./employee and 6% vacancy rate Assumed

** Not included in Grand Total

3.5.2 Current Transportation Proposals

The current status of a number of transportation proposals which were listed in the previous C.A.M.P. report are as follows:

(a) Road Proposals

Front Street Extension: The Environmental Assessment Study for the extension of Front Street from Bathurst Street to connect with the Gardiner Expressway was completed in 1988. A recommendation to Metro Council is expected to be made later in the Spring of 1989 to approve the extension. The project received the approval of City of Toronto Council on April 7, 1989.

Gardiner Expressway Widening: A report on the rebuilding of the Humber River bridges and South Kingsway interchange was submitted to Metro Council in 1988. Since there were concerns over the elimination of the South Kingsway ramps, further work had to be undertaken. This work is currently being presented to the public. A report on widening the expressway from 6 to 8 lanes between the Humber River and Strachan Avenue will follow at a later date.

Leslie Street Extension: The extension of Leslie Street southward from Eglinton Avenue to connect with the Bayview Avenue Extension, together with widening of Bayview to Bloor Street and reconfiguration of the Bloor/Bayview interchange, had been approved by Metropolitan Council in April, 1988. The necessary Official Plan Amendment for the extension was adopted by Council in July, 1988. The environmental assessment document is currently being finalized for submission to the Ministry of Environment.

One-Way Proposals: A proposal by the Mayor of Toronto for an experimental one-way system on Yonge and Bay Streets, scheduled for June, 1988, was not implemented and has since been defeated by City Council following objections by the public and business interests.

When considering the B.C.E. Place development in late 1987, Metropolitan Council requested the City of Toronto to support and authorize its staff to participate in a feasibility study for a Front/Wellington one-way street system from east of Spadina Avenue to Church Street. An assessment of the feasibility of this proposal is now underway.

(b) Transit Proposals

Harbourfront L.R.T.: Construction of this facility is currently underway. Completion is scheduled for early 1990. Various proposals to extend this line westerly are under study.

Spadina Transit: This proposal, for improved transit along Spadina Avenue from Bloor Street to Queens Quay, connecting with the Harbourfront line, has been the subject of ongoing studies. The studies necessary to complete the environmental assessment were commenced in June, 1988 and are expected to be completed in the Fall of 1989.

Subway Improvements: Studies are currently underway into means of reducing the peak period headway of the Yonge Subway line from its present level of 2 minutes 10 seconds. The first phase of the "Yonge-University-Spadina, Increased Capacity and Improved Headway Project" is expected to be approved in the Fall of 1989. With regard to future improvements to the Yonge-Bloor Station, it has been recommended that the subway platform widening at Bloor Station be provided for in conjunction with construction of a commercial development planned by Bramalea Limited adjacent to the station. A future third platform

option at Bloor station is now being protected; however, construction of this option would itself cause significant disruption to subway service, which could have to be weighed against long-term benefits.

(c) GO Rail

As part of the Province's commitment to incremental upgrading and expansion of existing GO commuter rail services, the Milton line service has been increased from 3 to 5 trains in the morning and afternoon, since January 9, 1989. These are within the peak periods, except for one train departing Union Station at 7:30 p.m. Also, starting on January 9, 1989, "trailer" bus services were implemented on the Georgetown and Stouffville lines. They depart from Union Station at 7:30 p.m. during weekdays and offer an "express" service stopping only at stations outside Metropolitan Toronto. Based on the success of this demonstration project and the results of passenger surveys undertaken by GO Transit, these services could be expanded to other lines during 1989.

(d) GO/T.T.C. Fare Integration and Service Co-ordination

Two phases of fare integration between GO and T.T.C. services have been implemented during 1988. The first phase involved the selling of the "Twinpass" to those riders using GO Rail and T.T.C. at Union Station, starting in February, 1988. The second phase, which expanded the program to patrons using any GO Rail station within Metropolitan Toronto, was initiated in November, 1988. As a result, there were 4,800 Twinpasses sold during the month of November, 1988.

The Province is intending to proceed with further expansions of the fare integration program to include T.T.C./GO Bus and GO Bus/Municipal Transit operations.

4.0 SUMMARY AND CONCLUSIONS

4.1 Synopsis of Findings

Based on results of the Metro Employment Survey, total employment within the Central Area did not show as significant growth during the past year as it did during the previous years, especially between 1986 and 1987. Total employment increased by only 4,817 between 1987 and 1988 compared to an increase of 18,250 between 1986 and 1987. In fact, full time employment decreased slightly by 0.4% between 1987 and 1988. Part-time employment increased significantly in almost all sectors, but mostly in the Office and Institutional sectors. Part-time as a proportion of full-time employment also increased and it represented 12.9% of total employment within the Central Area in 1988, compared to 11.5% in 1987. Office employment remained as the single major component of the total employment in the Central Area, increasing by about 5,950 during 1988, which represents a 2.6% growth over the 1987 level. As a result, the office sector represented 63.1% of the total employment in the Central Area, which is slightly higher than 62.4% in 1987. The Manufacturing/Wholesaling and Service sectors showed some declines while Retail and "Other" employment showed only minor changes. The majority of the employment growth occurred in the periphery of the Central Area Cordon and within the portion of the Extended Core Cordon outside the Downtown Core.

Office vacancy rates increased by about 1% in the Central Area during 1988, although an additional 112,000 sq.m. (1,2000,000 sq.ft.) of office space were absorbed. The Floor Space/Worker (FSW) ratio did not change between 1987 and 1988. According to the office surveys conducted by Royal LePage, office vacancy rates within the Central Area were about 4.7% south of Bloor Street and 2.8% north of Bloor Street, as of December, 1988. It is expected that vacancy rates may be higher in the future with the completion of new major developments such as Scotia Plaza and BCE Place. A possible slowdown in the economy may also cause higher vacancy rates. However, an average vacancy rate of 6% to 8% would still be considered normal for the Central Area of Toronto.

Across the Central Area Cordon, vehicle trips increased by about 1.0% during the a.m. peak period inbound direction and 3.7% during the p.m. peak period outbound direction, between 1987 and 1988. Person trips increased by about 4.0% in each peak period peak direction. While the vehicle and person trips across the Central Area Cordon showed some increases, the number of trips declined slightly across the Extended Core Cordon during the past year suggesting that additional trips across the Central Area Cordon were mostly destined to the peripheral area. Across the three inner cordons the most significant increases were in GO Rail passengers. Transit person trips across the Extended Core during the p.m. peak period also showed a significant increase between 1987 and 1988 following a continuous decline since 1985.

The highest percentage increases in GO Rail ridership between 1987 and 1988 were for the Stouffville (16%), Richmond Hill (12%), Lakeshore West (12%) and Bradford (9%) lines, during the 7:00 to 10:00 a.m. peak periods. The Lakeshore East line showed a minor increase in the order of 1%. Traffic volumes on the Gardiner Expressway west of Bathurst Street increased significantly in both directions, 17-hour daily volumes reaching the highest levels over the past 13 years.

As mentioned in the previous report, there is not a direct correlation between cordon count trends and employment statistics, partly because of the fact that cordon counts include through trips and non-work trips. With the available data, it is not possible to estimate through trips and non-work trips accurately and identify a trend over a period of time.

The average peak hour ridership at peak points of the University/Spadina and Bloor lines did not change significantly during 1988 compared to their 1987 levels. The only ridership increase experienced during the past year was on the Yonge line southbound south of Bloor Street. It increased by 4.7% to 27,500 passengers per hour during the a.m. peak hour; however, this increase was just enough to recover the same amount of decrease experienced a year earlier. Although the existing peak hour ridership on the Yonge line south of

Bloor Street is only 82% of the theoretical capacity, it should be noted that the 15-minute ridership counts during the peak hours frequently exceed the loading standard when expressed on an hourly basis.

Preliminary analysis of the T.T.S. data has indicated that 79.1% of all the peak period (6:00 to 9:00 a.m.) home-to-work trips to P.D.1 originated within Metropolitan Toronto and 20.9% from surrounding regions. Of all the home-to-work trips destined to P.D.1, 34.2% were by auto, 51.8% by transit (excluding GO) and 8.7% by GO Train. 43.1% of work trips with both trip ends within P.D.1 are made by "Other" modes, mostly walking or bicycling. A comparison of the results of the 1986 T.T.S. with 1981 Census Place of Work information showed that the percentage of P.D.1 destined 24-hour work trips originating within Metro decreased from 84.2% to 80.6% between 1981 and 1986 while those originating from the surrounding regions increased from 15.8% to 19.4% during the same period.

Between 1980 and 1988, the number of available non-residential off-street parking spaces increased by about 7% within the Downtown Core and 14% within the Extended Core Cordons. However, most of the increase took place between 1982 and 1984. During the 1984-1988 period, the number of spaces increased by only 2% within the Extended Core while decreasing by about 4% within the Downtown Core area.

Average travel speeds in 1988 on major arterials within the Central Area, as measured in a speed/delay study, were generally higher during the a.m. peak period than in the p.m. peak and off-peak periods. The highest average speed was recorded along University Avenue (34 km./h. during the a.m. peak period). In the east-west directions, Harbord/Wellesley Streets were fastest in the morning and Richmond/Adelaide Streets in the evening peak periods.

A total of approximately 3,140,000 sq.m. of new office space was committed or has been actively proposed as of March 31, 1989. This new space, when completed, would accommodate approximately 118,000 office employees.

However, net increase in the Central Area employment is estimated to be less than that since some office employees would transfer from older buildings and non-office employment is expected to decline. Provision of more office space may result in higher vacancy rates.

4.2 The Central Area Monitoring Program for 1989 and 1990

It is expected that the Metro Employment Survey and the Office Space Market Survey by Royal LePage will be repeated in 1989. Also, the full Cordon Count Program throughout Metro will be undertaken, including the Central Area and Extended Core Cordons.

Coding of the 1986 Census place-of-work data will be finalized during 1989. Therefore, the next report should include summary data from the 1986 Census as well as further detailed information from the T.T.S. as they relate to the Central Area.

A sample survey of Central Area residents, which was conducted on behalf of the City of Toronto Planning and Development Department in 1986, provided useful information with regard to work locations and travel modes of the Central Area residents. The City of Toronto plans to conduct another, more comprehensive survey in the Fall of 1989 in order to better understand the impact of continued population growth in the Central Area on reducing the need for additional transportation capacity.

As suggested in the previous report, it would be desirable to have reliable information on the travel characteristics of part-time workers in relation to those of full-time workers to better assess the impact of increasing proportions of part-time workers on peak period travel demand. This would require a more comprehensive survey. A commitment has been made to undertake such a survey in 1989.

It is recommended that the Speed and Delay study be repeated on a regular basis, for example, every two years to identify trends, and the next survey be undertaken in 1990.

4.3 Proposed Future Improvements to the Program

It is recommended that the Don Valley Parkway south of the Eglinton Avenue interchange be counted every year. This location, being a regular Cordon Count station, has only been counted during the Metro-wide cordon count years. It would be useful to count this section of the Don Valley Parkway every year as the scale of the Central Area oriented vehicular flow at this location is very significant.

As suggested in the previous report, an analysis of volume/capacity ratios on individual roads within the Central Area, and further analyses of peak spreading and through travel at the Central Area Cordon, would provide a better understanding of road system usage and measures of performance. Further analyses of these variables should be included in future reports. It is recommended that, as a first step, a detailed analysis of road capacities across the Central Area Cordon be undertaken next year so that further studies on levels of service and speed/flow relationships can proceed.

APPENDIX

EXHIBIT A.1: EMPLOYMENT BY TYPE, FOUR CORDONS, 1983-1988

	FULL-TIME EMPLOYMENT							PART-TIME EMPLOYMENT							TOTAL EMPLOYMENT						
	OFFICE	MAN+W	INSTIT	RETAIL	SERVICE	OTHER	TOTAL	OFFICE	MAN+W	INSTIT	RETAIL	SERVICE	OTHER	TOTAL	OFFICE	MAN+W	INSTIT	RETAIL	SERVICE	OTHER	TOTAL
(1) CENTRAL AREA CORDON																					
1983	193,705	18,690	33,855	20,688	24,629	4,161	295,728	6,146	1,208	4,757	6,632	5,577	2,186	26,506	199,851	19,898	38,612	27,320	30,206	6,347	322,234
1984	201,574	18,022	34,330	18,411	24,771	4,932	302,040	6,894	1,274	5,465	7,804	6,882	2,612	30,931	208,468	19,296	39,795	26,215	31,653	7,544	332,971
1985	201,319	18,501	35,268	18,587	24,949	5,076	303,700	9,295	1,241	5,204	8,047	7,494	3,937	35,218	210,614	19,742	40,472	26,634	32,443	9,013	338,918
1986	207,343	16,876	37,183	18,607	26,575	4,694	311,278	12,058	1,634	7,647	9,176	8,566	4,426	43,507	219,401	18,510	44,830	27,783	35,141	9,120	354,785
1987	220,280	16,266	40,903	18,924	28,086	5,781	330,240	12,334	1,294	6,844	9,124	8,951	4,255	42,802	232,614	17,560	47,747	28,048	37,037	10,036	373,042
1988	223,480	13,155	41,702	18,406	26,189	6,026	328,958	15,090	1,517	8,688	10,058	9,404	4,144	48,901	238,570	14,672	50,390	28,464	35,593	10,170	377,859
(2) DOWNTOWN CORE CORDON																					
1983	93,337	895	2,855	8,115	7,662	1,275	114,139	2,458	56	560	4,024	2,088	281	9,467	95,795	951	3,415	12,139	9,750	1,556	123,606
1984	100,741	721	2,593	5,837	7,716	870	118,478	2,304	64	480	4,379	2,453	495	10,175	103,045	785	3,073	10,216	10,169	1,365	128,653
1985	97,573	949	2,036	5,692	7,412	1,158	114,820	3,212	83	916	4,307	2,808	754	12,080	100,785	1,032	2,952	9,999	10,220	1,912	126,900
1986	99,164	927	2,604	5,861	7,408	1,247	117,211	3,643	160	646	4,784	3,041	694	12,968	102,807	1,087	3,250	10,645	10,449	1,941	130,179
1987	104,377	872	2,624	5,707	7,403	1,286	122,269	4,339	52	403	4,777	3,654	446	13,671	108,716	924	3,027	10,484	11,057	1,732	135,940
1988	103,217	611	2,993	5,720	6,741	1,338	120,620	5,861	82	1,106	4,990	3,159	534	15,732	109,078	693	4,099	10,710	9,900	1,872	136,352
(3) EXTENDED CORE CORDON																					
1983	107,635	2,622	3,617	8,563	9,600	1,980	134,017	2,651	174	578	4,121	2,733	385	10,642	110,286	2,796	4,195	12,684	12,333	2,365	144,659
1984	116,129	2,336	3,469	6,565	10,131	1,723	140,353	2,688	180	533	4,585	3,198	607	11,791	118,817	2,516	4,002	11,150	13,329	2,330	152,144
1985	113,413	2,670	3,015	6,502	10,082	2,554	138,236	3,683	211	975	4,571	3,549	1,129	14,118	117,096	2,881	3,990	11,073	13,631	3,683	152,354
1986	114,976	2,363	3,611	6,532	10,117	2,212	139,811	4,890	293	734	5,158	3,914	1,107	16,096	119,866	2,656	4,345	11,690	14,031	3,319	155,907
1987	122,584	2,370	3,995	6,568	11,422	2,051	148,990	5,567	92	421	5,184	4,525	1,413	17,202	128,151	2,462	4,416	11,752	15,947	3,464	166,192
1988	124,234	1,623	4,450	6,548	10,222	3,179	150,256	7,190	134	1,178	5,504	4,105	1,096	19,207	131,424	1,757	5,628	12,052	14,327	4,275	169,463
(4) DOWNTOWN CORDON																					
1983	142,470	1,934	15,176	13,769	15,229	2,022	190,600	3,849	834	2,197	5,320	3,667	1,806	17,673	146,319	2,768	17,373	19,089	18,896	3,828	208,273
1984	150,559	1,566	14,550	10,812	15,348	2,294	195,129	4,356	854	2,242	6,242	4,551	2,067	20,312	154,915	2,420	16,792	17,054	19,899	4,361	215,441
1985	147,446	1,805	15,210	10,792	15,040	2,124	192,417	5,976	871	2,910	6,336	5,015	2,964	24,072	153,422	2,676	18,120	17,128	20,055	5,088	216,489
1986	152,864	1,872	16,896	11,147	15,454	2,002	200,235	7,660	1,000	3,733	7,094	5,593	3,198	28,278	160,524	2,872	20,629	18,241	21,047	5,200	228,513
1987	163,466	1,670	17,075	11,225	15,368	2,681	211,485	8,024	834	3,147	7,138	6,139	2,848	28,130	171,490	2,504	20,222	18,363	21,507	5,529	239,615
1988	160,494	1,541	18,086	10,643	14,644	2,211	207,619	9,308	1,058	4,923	7,696	5,931	3,005	31,921	169,802	2,599	23,009	18,339	20,575	5,216	239,540

EXHIBIT A.2: VEHICLE TRIPS CROSSING CENTRAL AREA CORDON, 1975-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Autos & Taxis		Trucks		Transit Veh.		Total	Autos & Taxis		Trucks		Transit Veh.	
	Vehicles	Number	%	Number	%	Number	%	Vehicles	Number	%	Number	%	Number	%
West														
1975	33,437	29,014	86.8%	3,949	11.8%	474	1.4%	36,794	33,159	90.1%	3,123	8.5%	512	1.4%
1977	35,023	30,294	86.5%	4,259	12.2%	470	1.3%	37,385	33,572	89.8%	3,307	8.8%	506	1.4%
1979	36,092	31,051	86.0%	4,566	12.7%	475	1.3%	40,572	36,082	88.9%	4,000	9.9%	490	1.2%
1981	35,503	30,248	85.2%	4,780	13.5%	475	1.3%	35,594	31,295	87.9%	3,806	10.7%	493	1.4%
1983	37,617	32,585	86.6%	4,556	12.1%	476	1.3%	38,182	33,853	88.7%	3,863	10.1%	466	1.2%
1985	39,557	34,145	86.3%	4,948	12.5%	464	1.2%	40,099	35,315	88.1%	4,322	10.8%	462	1.2%
1986	40,094	35,016	87.3%	4,623	11.5%	455	1.1%	37,968	33,460	88.1%	4,065	10.7%	443	1.2%
1987	37,561	31,900	84.9%	5,233	13.9%	428	1.1%	38,384	32,899	85.7%	5,075	13.2%	410	1.1%
1988	38,452	32,116	83.5%	5,869	15.3%	467	1.2%	41,410	36,570	88.3%	4,382	10.6%	458	1.1%
1986*	41,914	36,620	87.4%	4,826	11.5%	468	1.1%	39,341	34,726	88.3%	4,167	10.6%	448	1.1%
1987*	41,029	34,791	84.8%	5,781	14.1%	457	1.1%	42,086	36,164	85.9%	5,496	13.1%	426	1.0%
1988*	41,779	34,919	83.6%	6,334	15.2%	526	1.3%	44,446	39,259	88.3%	4,712	10.6%	475	1.1%
North														
1975	18,417	17,168	93.2%	1,141	6.2%	108	0.7%	20,566	19,368	94.2%	1,064	5.2%	134	0.7%
1977	20,099	18,519	92.1%	1,420	7.1%	160	0.9%	21,692	20,275	93.5%	1,255	5.8%	162	0.7%
1979	19,745	17,907	90.7%	1,706	8.6%	132	0.7%	21,467	19,744	92.1%	1,575	7.3%	118	0.5%
1981	20,404	18,607	91.2%	1,666	8.2%	131	0.7%	22,039	20,358	92.4%	1,552	7.0%	129	0.6%
1983	19,801	18,088	91.3%	1,587	8.0%	126	0.7%	21,929	20,257	92.4%	1,566	7.1%	106	0.5%
1985	20,301	18,584	91.5%	1,603	7.9%	114	0.6%	22,508	20,727	92.1%	1,661	7.4%	120	0.5%
1986	21,447	19,738	92.0%	1,617	7.5%	92	0.4%	21,232	19,412	91.4%	1,691	8.0%	129	0.6%
1987	22,532	20,104	89.2%	2,284	10.1%	144	0.6%	21,647	19,559	90.4%	1,978	9.1%	110	0.5%
1988	21,108	19,608	92.9%	1,399	6.6%	101	0.5%	22,788	21,009	92.2%	1,644	7.2%	135	0.6%
East														
1975	40,229	35,303	87.8%	4,553	11.3%	373	0.9%	40,119	36,189	90.2%	3,541	8.8%	389	1.0%
1977	40,719	35,744	87.8%	4,616	11.3%	359	0.9%	40,233	35,751	88.9%	4,109	10.2%	373	0.9%
1979	46,599	40,838	87.6%	5,415	11.6%	346	0.7%	42,561	37,796	88.8%	4,405	10.3%	360	0.8%
1981	42,743	36,861	86.2%	5,440	12.7%	442	1.0%	42,575	37,768	88.7%	4,422	10.4%	385	0.9%
1983	42,345	36,612	86.5%	5,281	12.5%	452	1.1%	41,954	37,284	88.9%	4,229	10.1%	441	1.1%
1985	42,896	36,977	86.2%	5,496	12.8%	423	1.0%	44,018	38,783	88.1%	4,825	11.0%	410	0.9%
1986	47,029	41,570	88.4%	5,018	10.7%	441	0.9%	41,702	37,045	88.8%	4,199	10.1%	458	1.1%
1987	47,090	40,468	85.9%	6,226	13.2%	396	0.8%	45,232	39,224	86.7%	5,601	12.4%	407	0.9%
1988	48,917	43,216	88.3%	5,249	10.7%	452	0.9%	45,742	40,282	88.1%	5,128	11.2%	332	0.7%
TOTAL														
1975	92,083	81,485	88.5%	9,643	10.5%	955	1.0%	97,479	88,716	91.0%	7,728	7.9%	1,035	1.1%
1977	95,841	84,557	88.2%	10,295	10.7%	989	1.0%	99,310	88,598	90.2%	8,671	8.7%	1,041	1.0%
1979	102,436	89,796	87.7%	11,687	11.4%	953	0.9%	104,600	93,652	89.5%	9,980	9.5%	968	0.9%
1981	98,650	85,716	86.9%	11,886	12.0%	1,048	1.1%	100,208	89,421	89.2%	9,780	9.8%	1,007	1.0%
1983	99,763	87,285	87.5%	11,424	11.5%	1,054	1.1%	102,065	91,394	89.5%	9,658	9.5%	1,013	1.0%
1985	102,754	89,706	87.3%	12,047	11.7%	1,001	1.0%	106,625	94,825	88.9%	10,808	10.1%	992	0.9%
1986	108,570	96,324	88.7%	11,258	10.4%	988	0.9%	100,902	89,917	89.1%	9,955	9.9%	1,030	1.0%
1987	107,183	92,472	86.3%	13,743	12.8%	968	0.9%	105,263	91,682	87.1%	12,654	12.0%	927	0.9%
1988	108,477	94,940	87.5%	12,517	11.5%	1,020	0.9%	109,940	97,861	89.0%	11,154	10.1%	925	0.8%
1986*	110,390	97,928	88.7%	11,461	10.4%	1,001	0.9%	102,275	91,183	89.2%	10,057	9.8%	1,035	1.0%
1987*	110,651	95,363	86.2%	14,291	12.9%	997	0.9%	108,965	94,947	87.1%	13,075	12.0%	943	0.9%
1988*	111,804	97,743	87.4%	12,892	11.6%	1,079	1.0%	112,976	100,550	89.0%	11,484	10.2%	942	0.8%

* Including new stations

Source: Metro Cordon Count Program

EXHIBIT A.3: VEHICLE TRIPS CROSSING EXTENDED CORE CORDON, 1985-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Autos & Taxis		Trucks		Transit Veh.		Total	Autos & Taxis		Trucks		Transit Veh.	
	Vehicles	Number	%	Number	%	Number	%	Vehicles	Number	%	Number	%	Number	%
West														
1985	35,385	30,673	86.7%	4,422	12.5%	290	0.8%	36,844	32,647	88.6%	3,904	10.6%	293	0.8%
1986	38,254	33,369	87.2%	4,605	12.0%	280	0.7%	33,517	29,345	87.6%	3,895	11.6%	277	0.8%
1987	32,767	27,864	85.0%	4,616	14.1%	287	0.9%	36,871	32,059	86.9%	4,506	12.2%	306	0.8%
1988	32,112	27,793	86.6%	4,032	12.6%	287	0.9%	36,890	31,814	86.2%	4,664	12.6%	412	1.1%
North														
1985	13,132	11,591	88.3%	1,327	10.1%	214	1.6%	15,509	14,134	91.1%	1,161	7.5%	214	1.4%
1986	13,410	11,715	87.4%	1,482	11.1%	213	1.6%	16,981	15,338	90.3%	1,439	8.5%	204	1.2%
1987	13,807	11,927	86.4%	1,702	12.3%	178	1.3%	15,597	13,656	87.6%	1,735	11.1%	206	1.3%
1988	13,699	12,014	87.7%	1,540	11.2%	145	1.1%	16,469	14,855	90.2%	1,444	8.8%	170	1.0%
East														
1985	25,583	21,861	85.5%	3,448	13.5%	274	1.1%	29,589	25,815	87.2%	3,500	11.8%	274	0.9%
1986	32,279	27,421	84.9%	4,553	14.1%	305	0.9%	29,569	25,922	87.7%	3,358	11.4%	289	1.0%
1987	32,953	28,071	85.2%	4,557	13.8%	325	1.0%	27,786	23,806	85.7%	3,734	13.4%	246	0.9%
1988	31,894	26,845	84.2%	4,743	14.9%	306	1.0%	26,519	22,946	86.5%	3,341	12.6%	232	0.9%
TOTAL														
1985	74,100	64,125	86.5%	9,197	12.4%	778	1.0%	81,942	72,596	88.6%	8,565	10.5%	781	1.0%
1986	83,943	72,505	86.4%	10,640	12.7%	798	1.0%	80,067	70,605	88.2%	8,692	10.9%	770	1.0%
1987	79,527	67,862	85.3%	10,875	13.7%	790	1.0%	80,254	69,521	86.6%	9,975	12.4%	758	0.9%
1988	77,705	66,652	85.8%	10,315	13.3%	738	0.9%	79,878	69,615	87.2%	9,449	11.8%	814	1.0%

Source: Metro Cordon Count Program

EXHIBIT A.4: VEHICLE TRIPS CROSSING DOWNTOWN CORE CORDON, 1975-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Autos & Taxis		Trucks		Transit Veh.		Total	Autos & Taxis		Trucks		Transit Veh.	
	Vehicles	Number	%	Number	%	Number	%	Vehicles	Number	%	Number	%	Number	%
West														
1975	6,644	5,483	82.5%	895	13.5%	266	4.0%	11,521	10,316	89.5%	815	7.1%	390	3.4%
1977	7,130	6,018	84.4%	829	11.6%	283	4.0%	12,579	11,355	90.3%	823	6.5%	401	3.2%
1979	7,173	5,941	82.8%	960	13.4%	272	3.8%	13,038	11,680	89.6%	966	7.4%	392	3.0%
1981	6,541	5,477	83.7%	843	12.9%	221	3.4%	12,917	11,612	89.9%	1,000	7.7%	305	2.4%
1982	6,764	5,638	83.4%	918	13.6%	208	3.1%	12,842	11,559	90.0%	980	7.6%	303	2.4%
1984	7,553	6,349	84.1%	980	13.0%	224	3.0%	14,626	13,064	89.3%	1,233	8.4%	329	2.2%
1986	8,549	7,316	85.6%	1,036	12.1%	197	2.3%	14,183	12,569	88.6%	1,306	9.2%	308	2.2%
1988	9,334	7,821	83.8%	1,222	13.1%	291	3.1%	15,103	13,072	86.6%	1,753	11.6%	278	1.8%
North														
1975	6,053	5,106	84.4%	764	12.6%	183	3.0%	7,230	6,601	91.3%	487	6.7%	142	2.0%
1977	6,022	5,168	85.8%	663	11.0%	191	3.2%	7,693	6,981	90.7%	556	7.2%	156	2.0%
1979	6,486	5,409	83.4%	860	13.3%	217	3.3%	8,439	7,622	90.3%	675	8.0%	142	1.7%
1981	6,437	5,443	84.6%	822	12.8%	172	2.7%	8,880	8,058	90.7%	683	7.7%	139	1.6%
1982	6,332	5,327	84.1%	844	13.3%	161	2.5%	8,546	7,783	91.1%	627	7.3%	136	1.6%
1984	6,920	5,974	86.3%	769	11.1%	177	2.6%	8,948	8,058	90.1%	716	8.0%	174	1.9%
1986	7,111	5,960	83.8%	963	13.5%	188	2.6%	9,379	8,327	88.8%	894	9.5%	158	1.7%
1988	7,389	6,144	83.2%	1,112	15.0%	133	1.8%	8,669	7,709	88.9%	852	9.8%	108	1.2%
East														
1975	11,416	10,004	87.6%	1,156	10.1%	256	2.2%	11,057	9,941	89.9%	844	7.6%	272	2.5%
1977	12,003	10,534	87.8%	1,238	10.3%	231	1.9%	11,363	10,213	89.9%	909	8.0%	241	2.1%
1979	12,825	11,277	87.9%	1,329	10.4%	219	1.7%	11,785	10,496	89.1%	1,054	8.9%	235	2.0%
1981	15,484	13,405	86.6%	1,865	12.0%	214	1.4%	11,725	10,376	88.5%	1,174	10.0%	175	1.5%
1982	12,921	11,375	88.0%	1,348	10.4%	198	1.5%	12,206	10,959	89.8%	1,020	8.4%	227	1.9%
1984	15,473	13,720	88.7%	1,542	10.0%	211	1.4%	12,966	11,650	89.9%	1,099	8.5%	217	1.7%
1986	14,034	12,192	86.9%	1,643	11.7%	199	1.4%	13,148	11,718	89.1%	1,219	9.3%	211	1.6%
1988	15,444	13,592	88.0%	1,635	10.6%	217	1.4%	13,422	12,225	91.1%	1,021	7.6%	176	1.3%
South														
1975	7,936	7,094	89.4%	671	8.5%	171	2.2%	4,921	4,316	87.7%	485	9.9%	120	2.4%
1977	8,315	7,485	90.0%	685	8.2%	145	1.7%	4,663	4,189	89.8%	341	7.3%	133	2.9%
1979	8,090	7,197	89.0%	737	9.1%	156	1.9%	4,893	4,369	89.3%	410	8.4%	114	2.3%
1981	8,225	7,092	86.2%	972	11.8%	161	2.0%	3,588	3,159	88.0%	313	8.7%	116	3.2%
1982	8,469	7,471	88.2%	841	9.9%	157	1.9%	4,466	3,974	89.0%	402	9.0%	90	2.0%
1984	8,943	7,859	87.9%	924	10.3%	160	1.8%	5,030	4,534	90.1%	393	7.8%	103	2.0%
1986	10,167	8,961	88.1%	1,094	10.8%	112	1.1%	4,670	4,060	86.9%	525	11.2%	85	1.8%
1988	7,601	6,596	86.8%	946	12.4%	59	0.8%	4,026	3,378	83.9%	544	13.5%	104	2.6%
TOTAL														
1975	32,049	27,687	86.4%	3,486	10.9%	876	2.7%	34,729	31,174	89.8%	2,631	7.6%	924	2.7%
1977	33,470	29,205	87.3%	3,415	10.2%	850	2.5%	36,298	32,738	90.2%	2,629	7.2%	931	2.6%
1979	34,574	29,824	86.3%	3,886	11.2%	864	2.5%	38,155	34,167	89.5%	3,105	8.1%	883	2.3%
1981	36,687	31,417	85.6%	4,502	12.3%	768	2.1%	37,110	33,205	89.5%	3,170	8.5%	735	2.0%
1982	34,486	29,811	86.4%	3,951	11.5%	724	2.1%	38,060	34,275	90.1%	3,029	8.0%	756	2.0%
1984	38,889	33,902	87.2%	4,215	10.8%	772	2.0%	41,570	37,306	89.7%	3,441	8.3%	823	2.0%
1986	39,861	34,429	86.4%	4,736	11.9%	696	1.7%	41,380	36,674	88.6%	3,944	9.5%	762	1.8%
1988	39,768	34,153	85.9%	4,915	12.4%	700	1.8%	41,220	36,384	88.3%	4,170	10.1%	666	1.6%

Source: Metro Cordon Count Program

EXHIBIT A.5: VEHICLE TRIPS CROSSING DOWNTOWN CORDON, 1975-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Autos & Taxis		Trucks		Transit Veh.		Total	Autos & Taxis		Trucks		Transit Veh.	
	Vehicles	Number	%	Number	%	Number	%	Vehicles	Number	%	Number	%	Number	%
West														
1975	19,741	16,872	85.5%	2,319	11.7%	550	2.8%	28,028	25,422	90.7%	1,959	7.0%	647	2.3%
1977	20,470	17,659	86.3%	2,225	10.9%	586	2.9%	30,230	27,549	91.1%	2,016	6.7%	665	2.2%
1979	20,168	17,068	84.6%	2,538	12.6%	562	2.8%	29,823	26,845	90.0%	2,334	7.8%	644	2.2%
1981	20,536	17,271	84.1%	2,715	13.2%	550	2.7%	30,016	26,942	89.8%	2,505	8.3%	569	1.9%
1982	20,080	17,041	84.9%	2,531	12.6%	508	2.5%	29,664	26,655	89.9%	2,437	8.2%	572	1.9%
1984	22,355	19,162	85.7%	2,656	11.9%	537	2.4%	33,295	29,982	90.0%	2,704	8.1%	609	1.8%
1986	24,278	20,803	85.7%	2,949	12.1%	526	2.2%	32,637	29,123	89.2%	2,946	9.0%	568	1.7%
1988	25,598	21,688	84.7%	3,285	12.8%	625	2.4%	32,841	28,840	87.8%	3,495	10.6%	506	1.5%
North														
1975	5,476	5,038	92.0%	416	7.6%	22	0.4%	6,214	5,845	94.1%	334	5.4%	35	0.6%
1977	4,543	4,160	91.6%	362	8.0%	21	0.5%	5,515	5,131	93.0%	362	6.6%	22	0.4%
1979	5,294	4,775	90.2%	503	9.5%	16	0.3%	6,431	5,979	93.0%	433	6.7%	19	0.3%
1981	5,382	4,814	89.4%	544	10.1%	24	0.4%	6,460	5,981	92.6%	464	7.2%	15	0.2%
1982	5,682	5,181	91.2%	483	8.5%	18	0.3%	6,699	6,224	92.9%	456	6.8%	19	0.3%
1984	5,643	5,101	90.4%	523	9.3%	19	0.3%	6,315	5,874	93.0%	432	6.8%	9	0.1%
1986	5,944	5,338	89.8%	596	10.0%	10	0.2%	6,904	6,256	90.6%	626	9.1%	22	0.3%
1988	6,236	5,586	89.6%	629	10.1%	21	0.3%	6,569	5,997	91.3%	555	8.4%	17	0.3%
East														
1975	24,575	21,851	88.9%	2,288	9.3%	436	1.8%	24,443	22,235	91.0%	1,746	7.1%	462	1.9%
1977	25,767	22,985	89.2%	2,377	9.2%	405	1.6%	27,245	24,883	91.3%	1,957	7.2%	405	1.5%
1979	27,079	24,000	88.6%	2,691	9.9%	388	1.4%	26,671	24,105	90.4%	2,151	8.1%	415	1.6%
1981	29,694	25,847	87.0%	3,396	11.4%	451	1.5%	26,786	23,991	89.6%	2,406	9.0%	389	1.5%
1982	26,254	23,063	87.8%	2,742	10.4%	449	1.7%	27,081	24,393	90.1%	2,260	8.3%	428	1.6%
1984	30,778	27,426	89.1%	2,930	9.5%	422	1.4%	28,032	25,323	90.3%	2,266	8.1%	443	1.6%
1986	29,013	25,375	87.5%	3,215	11.1%	423	1.5%	28,309	25,412	89.8%	2,486	8.8%	411	1.5%
1988	30,208	26,632	88.2%	3,140	10.4%	436	1.4%	27,950	25,008	89.5%	2,557	9.1%	385	1.4%
South														
1975	7,936	7,094	89.4%	671	8.5%	171	2.2%	4,921	4,316	87.7%	485	9.9%	120	2.4%
1977	8,315	7,485	90.0%	685	8.2%	145	1.7%	4,663	4,189	89.8%	341	7.3%	133	2.9%
1979	8,090	7,197	89.0%	737	9.1%	156	1.9%	4,893	4,369	89.3%	410	8.4%	114	2.3%
1981	8,225	7,092	86.2%	972	11.8%	161	2.0%	3,588	3,159	88.0%	313	8.7%	116	3.2%
1982	8,469	7,471	88.2%	841	9.9%	157	1.9%	4,466	3,974	89.0%	402	9.0%	90	2.0%
1984	8,943	7,859	87.9%	924	10.3%	160	1.8%	5,030	4,534	90.1%	393	7.8%	103	2.0%
1986	10,167	8,961	88.1%	1,094	10.8%	112	1.1%	4,670	4,060	86.9%	525	11.2%	85	1.8%
1988	7,601	6,596	86.8%	946	12.4%	59	0.8%	4,026	3,378	83.9%	544	13.5%	104	2.6%
TOTAL														
1975	57,728	50,855	88.1%	5,694	9.9%	1,179	2.0%	63,606	57,818	90.9%	4,524	7.1%	1,264	2.0%
1977	59,095	52,289	88.5%	5,649	9.6%	1,157	2.0%	67,653	61,752	91.3%	4,676	6.9%	1,225	1.8%
1979	60,631	53,040	87.5%	6,469	10.7%	1,122	1.9%	67,818	61,298	90.4%	5,328	7.9%	1,192	1.8%
1981	63,837	55,024	86.2%	7,627	11.9%	1,186	1.9%	66,850	60,073	89.9%	5,688	8.5%	1,089	1.6%
1982	60,485	52,756	87.2%	6,597	10.9%	1,132	1.9%	67,910	61,246	90.2%	5,555	8.2%	1,109	1.6%
1984	67,719	59,548	87.9%	7,033	10.4%	1,138	1.7%	72,672	65,713	90.4%	5,795	8.0%	1,164	1.6%
1986	69,402	60,477	87.1%	7,854	11.3%	1,071	1.5%	72,520	64,851	89.4%	6,583	9.1%	1,086	1.5%
1988	69,643	60,502	86.9%	8,000	11.5%	1,141	1.6%	71,386	63,223	88.6%	7,151	10.0%	1,012	1.4%

Source: Metro Cordon Count Program

EXHIBIT A.6: PERSON TRIPS CROSSING CENTRAL AREA CORDON, 1975-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Auto & Taxi		Transit		GO Rail		Total	Auto & Taxi		Transit		GO Rail	
	Persons	Number	%	Number	%	Number	%	Persons	Number	%	Number	%	Number	%
West														
1975	104,644	38,254	36.6%	60,214	57.5%	6,176	5.9%	110,814	46,202	41.7%	58,529	52.8%	6,083	5.5%
1977	106,938	39,535	37.0%	59,603	55.7%	7,800	7.3%	117,172	46,563	39.7%	62,316	53.2%	8,293	7.1%
1979	103,911	40,604	39.1%	53,958	51.9%	9,349	9.0%	124,850	53,492	42.8%	61,985	49.6%	9,373	7.5%
1981	108,140	38,578	35.7%	57,339	53.0%	12,223	11.3%	116,068	41,695	35.9%	62,440	53.8%	11,933	10.3%
1983	113,499	42,407	37.4%	58,227	51.3%	12,815	11.3%	116,551	45,121	38.7%	59,197	50.8%	12,233	10.5%
1985	113,135	42,954	38.0%	55,480	49.0%	14,701	13.0%	113,252	46,253	40.8%	53,172	47.0%	13,827	12.2%
1986	112,441	44,466	39.5%	53,396	47.5%	14,579	13.0%	112,784	43,742	38.8%	55,242	49.0%	13,800	12.2%
1987	111,405	39,184	35.2%	55,776	50.1%	16,445	14.8%	115,574	42,997	37.1%	56,939	49.2%	15,818	13.7%
1988	115,766	39,449	34.1%	58,482	50.5%	17,835	15.4%	121,083	47,794	39.5%	56,865	47.0%	16,424	13.6%
1986*	114,534	46,516	40.6%	53,439	46.7%	14,579	12.7%	114,577	45,474	39.7%	55,303	48.3%	13,800	12.0%
1987*	115,156	42,704	37.1%	56,007	48.6%	16,445	14.3%	120,110	47,274	39.4%	57,018	47.5%	15,818	13.2%
1988*	119,980	42,861	35.7%	59,284	49.4%	17,835	14.9%	124,648	51,319	41.2%	56,905	45.7%	16,424	13.2%
North														
1975	64,292	22,033	34.3%	42,259	65.7%			71,742	25,900	36.1%	45,842	63.9%		
1977	77,374	23,721	30.7%	53,653	69.3%			74,210	26,883	36.2%	47,377	63.8%		
1979	75,982	22,766	30.0%	53,216	70.0%			86,628	26,246	30.3%	60,382	69.7%		
1981	86,413	22,769	26.3%	63,644	73.7%			89,801	26,525	29.5%	63,276	70.5%		
1983	85,790	22,616	26.4%	63,174	73.6%			93,032	27,153	29.2%	65,879	70.8%		
1985	85,443	22,850	26.7%	62,593	73.3%			95,079	27,119	28.5%	67,960	71.5%		
1986	92,698	24,474	26.4%	68,224	73.6%			90,635	25,414	28.0%	65,221	72.0%		
1987	89,123	24,157	27.1%	64,966	72.9%			92,294	24,822	26.9%	67,472	73.1%		
1988	93,163	23,561	25.3%	69,602	74.7%			96,765	26,662	27.6%	70,103	72.4%		
East														
1975	99,187	46,850	47.2%	48,431	48.8%	3,906	3.9%	105,166	48,735	46.3%	53,114	50.5%	3,317	3.2%
1977	94,636	47,169	49.8%	42,852	45.3%	4,615	4.9%	103,831	48,123	46.3%	51,445	49.5%	4,263	4.1%
1979	107,617	56,645	52.6%	44,202	41.1%	6,770	6.3%	103,521	51,045	49.3%	45,979	44.4%	6,497	6.3%
1981	113,818	48,705	42.8%	56,954	50.0%	8,159	7.2%	110,644	50,420	45.6%	52,789	47.7%	7,435	6.7%
1983	107,152	47,294	44.1%	51,915	48.4%	7,943	7.4%	110,124	49,321	44.8%	53,710	48.8%	7,093	6.4%
1985	101,964	47,769	46.8%	45,426	44.6%	8,769	8.6%	114,896	50,823	44.2%	55,368	48.2%	8,705	7.6%
1986	117,038	51,984	44.4%	56,107	47.9%	8,947	7.6%	111,020	51,268	46.2%	51,181	46.1%	8,571	7.7%
1987	116,959	49,865	42.7%	57,298	49.1%	9,796	8.3%	116,555	50,559	43.4%	56,916	48.8%	9,080	7.8%
1988	120,913	53,251	44.0%	57,476	47.5%	10,186	8.4%	120,666	51,923	43.0%	59,043	48.9%	9,700	8.0%
TOTAL														
1975	268,123	107,137	40.0%	150,904	56.3%	10,082	3.8%	287,722	120,837	42.0%	157,485	54.7%	9,400	3.3%
1977	278,948	110,425	39.6%	156,108	56.0%	12,415	4.5%	295,213	121,519	41.2%	161,138	54.6%	12,556	4.3%
1979	287,510	120,015	41.7%	151,376	52.7%	16,119	5.6%	314,999	130,783	41.5%	168,346	53.4%	15,870	5.0%
1981	308,371	110,052	35.7%	177,937	57.7%	20,382	6.6%	316,513	118,640	37.5%	178,505	56.4%	19,368	6.1%
1983	306,441	112,317	36.7%	173,366	56.6%	20,758	6.8%	319,707	121,595	38.0%	178,786	55.9%	19,326	6.0%
1985	300,542	113,573	37.8%	163,499	54.4%	23,470	7.8%	323,227	124,195	38.4%	176,500	54.6%	22,532	7.0%
1986	322,177	120,924	37.5%	177,727	55.2%	23,526	7.3%	314,439	120,424	38.3%	171,644	54.6%	22,371	7.1%
1987	317,487	113,206	35.7%	178,040	56.1%	26,241	8.2%	324,603	118,378	36.5%	181,327	55.9%	24,898	7.7%
1988	329,842	116,261	35.2%	185,560	56.3%	28,021	8.5%	338,514	126,379	37.3%	186,011	54.9%	26,124	7.7%
1986*	324,270	122,974	37.9%	177,770	54.8%	23,526	7.3%	316,232	122,156	38.6%	171,705	54.3%	22,371	7.1%
1987*	321,238	116,726	36.4%	178,271	55.5%	26,241	8.1%	328,959	122,655	37.3%	181,406	55.1%	24,898	7.6%
1988*	334,056	119,673	35.8%	186,362	55.8%	28,021	8.4%	342,079	129,904	38.0%	186,051	54.4%	26,124	7.6%

* Including new stations

Source: Metro Cordon Count Program

EXHIBIT A.7: PERSON TRIPS CROSSING EXTENDED CORE CORDON, 1985-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Auto & Taxi		Transit		GO Rail		Total	Auto & Taxi		Transit		GO Rail	
	Persons	Number	%	Number	%	Number	%	Persons	Number	%	Number	%	Number	%
West														
1985	61,387	37,909	61.8%	8,777	14.3%	14,701	23.9%	65,620	42,210	64.3%	9,583	14.6%	13,827	21.1%
1986	66,719	43,347	65.0%	8,793	13.2%	14,579	21.9%	59,239	37,245	62.9%	8,194	13.8%	13,800	23.3%
1987	56,173	33,082	58.9%	6,646	11.8%	16,445	29.3%	65,144	41,702	64.0%	7,624	11.7%	15,818	24.3%
1988	59,312	33,847	57.1%	7,630	12.9%	17,835	30.0%	64,892	39,748	61.3%	8,720	13.4%	16,424	25.3%
North														
1985	79,076	14,260	18.0%	64,816	82.0%			89,470	18,503	20.7%	70,967	79.3%		
1986	81,235	13,710	16.9%	67,525	83.1%			85,950	19,908	23.2%	66,042	76.8%		
1987	95,064	14,406	15.2%	80,658	84.8%			86,516	17,573	20.3%	68,943	79.7%		
1988	87,539	14,116	16.1%	73,423	83.9%			90,556	19,051	21.0%	71,505	79.0%		
East														
1985	42,127	27,788	66.0%	5,570	13.2%	8,769	20.8%	48,922	33,279	68.0%	6,938	14.2%	8,705	17.8%
1986	51,012	34,461	67.6%	7,604	14.9%	8,947	17.5%	51,089	34,569	67.7%	7,949	15.6%	8,571	16.8%
1987	52,302	34,899	66.9%	7,607	14.6%	9,796	18.5%	44,241	30,447	68.8%	4,714	10.7%	9,080	20.5%
1988	50,486	33,493	66.3%	6,807	13.5%	10,186	20.2%	44,506	29,557	66.4%	5,249	11.8%	9,700	21.8%
TOTAL														
1985	182,590	79,957	43.8%	79,163	43.4%	23,470	12.9%	204,012	93,992	46.1%	87,488	42.9%	22,532	11.0%
1986	198,966	91,518	46.0%	83,922	42.2%	23,526	11.8%	196,278	91,722	46.7%	82,185	41.9%	22,371	11.4%
1987	203,539	82,387	40.5%	94,911	46.7%	26,241	12.8%	195,901	89,722	45.8%	81,281	41.5%	24,898	12.7%
1988	197,337	81,456	41.3%	87,860	44.5%	28,021	14.2%	199,954	88,356	44.2%	85,474	42.7%	26,124	13.1%

Source: Metro Cordon Count Program

EXHIBIT A.8: PERSON TRIPS CROSSING DOWNTOWN CORE CORDON, 1975-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Auto & Taxi		Transit		GO Rail		Total	Auto & Taxi		Transit		GO Rail	
	Persons	Number	%	Number	%	Number	%	Persons	Number	%	Number	%	Number	%
West														
1975	13,282	7,026	52.9%	6,256	47.1%			22,905	14,082	61.5%	8,823	38.5%		
1977	12,935	7,430	57.4%	5,505	42.6%			24,104	15,131	62.8%	8,973	37.2%		
1979	13,085	7,190	54.9%	5,895	45.1%			23,905	15,947	66.7%	7,958	33.3%		
1981	11,927	6,447	54.1%	5,480	45.9%			23,312	14,917	64.0%	8,395	36.0%		
1982	11,865	6,862	57.8%	5,003	42.2%			22,260	14,635	65.7%	7,625	34.3%		
1984	12,596	7,720	61.3%	4,876	38.7%			25,959	17,473	67.3%	8,486	32.7%		
1986	13,371	8,761	65.5%	4,610	34.5%			23,715	15,913	67.1%	7,802	32.9%		
1988	13,796	9,394	68.1%	4,402	31.9%			23,378	16,720	71.5%	6,658	28.5%		
North														
1975	70,168	6,551	9.3%	63,617	90.7%			63,870	9,443	14.8%	54,427	85.2%		
1977	67,223	6,364	9.5%	60,859	90.5%			74,932	9,536	12.7%	65,396	87.3%		
1979	70,061	6,685	9.5%	63,376	90.5%			67,738	10,213	15.1%	57,525	84.9%		
1981	78,365	6,796	8.7%	71,569	91.3%			79,985	11,089	13.9%	68,896	86.1%		
1982	80,644	6,519	8.1%	74,125	91.9%			78,243	10,001	12.8%	68,242	87.2%		
1984	80,432	7,297	9.1%	73,135	90.9%			76,433	10,727	14.0%	65,706	86.0%		
1986	74,276	6,957	9.4%	67,319	90.6%			76,384	10,901	14.3%	65,483	85.7%		
1988	80,836	7,426	9.2%	73,410	90.8%			81,078	9,885	12.2%	71,193	87.8%		
East														
1975	21,859	13,776	63.0%	8,083	37.0%			22,397	14,083	62.9%	8,314	37.1%		
1977	21,927	14,168	64.6%	7,759	35.4%			22,509	14,760	65.6%	7,749	34.4%		
1979	23,097	15,314	66.3%	7,783	33.7%			22,053	14,509	65.8%	7,544	34.2%		
1981	24,267	17,459	71.9%	6,808	28.1%			22,383	14,541	65.0%	7,842	35.0%		
1982	22,011	15,097	68.6%	6,914	31.4%			23,915	15,413	64.4%	8,502	35.6%		
1984	24,476	18,166	74.2%	6,310	25.8%			22,325	15,613	69.9%	6,712	30.1%		
1986	22,448	15,905	70.9%	6,543	29.1%			22,566	15,693	69.5%	6,873	30.5%		
1988	23,875	17,781	74.5%	6,094	25.5%			20,991	16,093	76.7%	4,898	23.3%		
South														
1975	20,678	9,570	46.3%	1,096	5.3%	10,012	48.4%	16,439	6,413	39.0%	1,111	6.8%	8,915	54.2%
1977	23,631	10,140	42.9%	1,056	4.5%	12,435	52.6%	20,273	6,457	31.9%	1,260	6.2%	12,556	61.9%
1979	26,710	9,459	35.4%	1,132	4.2%	16,119	60.3%	22,946	6,518	28.4%	858	3.7%	15,570	67.9%
1981	31,002	9,326	30.1%	1,294	4.2%	20,382	65.7%	25,295	4,538	17.9%	1,389	5.5%	19,368	76.6%
1982	31,139	9,110	29.3%	1,116	3.6%	20,913	67.2%	26,487	5,804	21.9%	703	2.7%	19,980	75.4%
1984	34,302	10,467	30.5%	989	2.9%	22,846	66.6%	29,156	6,338	21.7%	1,148	3.9%	21,670	74.3%
1986	36,143	11,581	32.0%	1,036	2.9%	23,526	65.1%	29,115	5,691	19.5%	1,053	3.6%	22,371	76.8%
1988	36,987	8,335	22.5%	631	1.7%	28,021	75.8%	31,664	4,526	14.3%	1,014	3.2%	26,124	82.5%
TOTAL														
1975	125,987	36,923	29.3%	79,052	62.7%	10,012	7.9%	125,611	44,021	35.0%	72,675	57.9%	8,915	7.1%
1977	125,716	38,102	30.3%	75,179	59.8%	12,435	9.9%	141,818	45,884	32.4%	83,378	58.8%	12,556	8.9%
1979	132,953	38,648	29.1%	78,186	58.8%	16,119	12.1%	136,642	47,187	34.5%	73,885	54.1%	15,570	11.4%
1981	145,561	40,028	27.5%	85,151	58.5%	20,382	14.0%	150,975	45,085	29.9%	86,522	57.3%	19,368	12.8%
1982	145,659	37,588	25.8%	87,158	59.8%	20,913	14.4%	150,905	45,853	30.4%	85,072	56.4%	19,980	13.2%
1984	151,806	43,650	28.8%	85,310	56.2%	22,846	15.0%	153,873	50,151	32.6%	82,052	53.3%	21,670	14.1%
1986	146,238	43,204	29.5%	79,508	54.4%	23,526	16.1%	151,780	48,198	31.8%	81,211	53.5%	22,371	14.7%
1988	155,494	42,936	27.6%	84,537	54.4%	28,021	18.0%	157,111	47,224	30.1%	83,763	53.3%	26,124	16.6%

Source: Metro Cordon Count Program

EXHIBIT A.9: PERSON TRIPS CROSSING DOWNTOWN CORDON, 1975-1988

	7:00 A.M. - 10:00 A.M. A.M. Peak Period - Inbound							3:30 P.M. - 6:30 P.M. P.M. Peak Period - Outbound						
	Total	Auto & Taxi		Transit		GO Rail		Total	Auto & Taxi		Transit		GO Rail	
	Persons	Number	%	Number	%	Number	%	Persons	Number	%	Number	%	Number	%
West														
1975	88,013	21,535	24.5%	66,478	75.5%			110,689	35,028	31.6%	75,661	68.4%		
1977	81,958	21,893	26.7%	60,065	73.3%			103,066	36,943	35.8%	66,123	64.2%		
1979	96,686	22,065	22.8%	74,621	77.2%			113,946	36,279	31.8%	77,667	68.2%		
1981	105,951	20,895	19.7%	85,056	80.3%			118,996	35,589	29.9%	83,407	70.1%		
1982	104,789	20,956	20.0%	83,833	80.0%			126,688	35,047	27.7%	91,641	72.3%		
1984	111,439	23,205	20.8%	88,234	79.2%			121,664	39,805	32.7%	81,859	67.3%		
1986	101,406	25,001	24.7%	76,405	75.3%			121,126	37,781	31.2%	83,345	68.8%		
1988	115,835	26,220	22.6%	89,615	77.4%			124,365	36,998	29.7%	87,367	70.3%		
North														
1975	55,719	6,598	11.8%	49,121	88.2%			62,360	7,965	12.8%	54,395	87.2%		
1977	55,044	5,313	9.7%	49,731	90.3%			55,991	7,136	12.7%	48,855	87.3%		
1979	43,672	6,017	13.8%	37,655	86.2%			48,782	8,083	16.6%	40,699	83.4%		
1981	57,431	5,911	10.3%	51,520	89.7%			56,219	8,103	14.4%	48,116	85.6%		
1982	49,712	6,517	13.1%	43,195	86.9%			54,657	8,254	15.1%	46,403	84.9%		
1984	49,256	6,300	12.8%	42,956	87.2%			53,774	7,705	14.3%	46,069	85.7%		
1986	46,694	6,455	13.8%	40,239	86.2%			52,380	8,272	15.8%	44,108	84.2%		
1988	49,595	6,703	13.5%	42,892	86.5%			49,436	7,566	15.3%	41,870	84.7%		
East														
1975	79,554	29,576	37.2%	49,978	62.8%			83,548	30,956	37.1%	52,592	62.9%		
1977	81,762	30,401	37.2%	51,361	62.8%			87,456	34,731	39.7%	52,725	60.3%		
1979	79,302	32,131	40.5%	47,171	59.5%			83,893	32,855	39.2%	51,038	60.8%		
1981	87,304	33,883	38.8%	53,421	61.2%			88,225	33,036	37.4%	55,189	62.6%		
1982	84,360	30,384	36.0%	53,976	64.0%			94,128	33,483	35.6%	60,645	64.4%		
1984	93,241	35,653	38.2%	57,588	61.8%			90,173	33,980	37.7%	56,193	62.3%		
1986	87,582	32,308	36.9%	55,274	63.1%			90,189	33,860	37.5%	56,329	62.5%		
1988	93,990	34,532	36.7%	59,458	63.3%			85,864	32,937	38.4%	52,927	61.6%		
South														
1975	20,678	9,570	46.3%	1,096	5.3%	10,012	48.4%	16,439	6,413	39.0%	1,111	6.8%	8,915	54.2%
1977	23,631	10,140	42.9%	1,056	4.5%	12,435	52.6%	20,273	6,457	31.9%	1,260	6.2%	12,556	61.9%
1979	26,710	9,459	35.4%	1,132	4.2%	16,119	60.3%	22,946	6,518	28.4%	858	3.7%	15,570	67.9%
1981	31,002	9,326	30.1%	1,294	4.2%	20,382	65.7%	25,295	4,538	17.9%	1,389	5.5%	19,368	76.6%
1982	31,139	9,110	29.3%	1,116	3.6%	20,913	67.2%	26,487	5,804	21.9%	703	2.7%	19,980	75.4%
1984	34,302	10,467	30.5%	989	2.9%	22,846	66.6%	29,156	6,338	21.7%	1,148	3.9%	21,670	74.3%
1986	36,143	11,581	32.0%	1,036	2.9%	23,526	65.1%	29,115	5,691	19.5%	1,053	3.6%	22,371	76.8%
1988	36,987	8,335	22.5%	631	1.7%	28,021	75.8%	31,664	4,526	14.3%	1,014	3.2%	26,124	82.5%
TOTAL														
1975	243,964	67,279	27.6%	166,673	68.3%	10,012	4.1%	273,036	80,362	29.4%	183,759	67.3%	8,915	3.3%
1977	242,395	67,747	27.9%	162,213	66.9%	12,435	5.1%	266,786	85,267	32.0%	168,963	63.3%	12,556	4.7%
1979	246,370	69,672	28.3%	160,579	65.2%	16,119	6.5%	269,567	83,735	31.1%	170,262	63.2%	15,570	5.8%
1981	281,688	70,015	24.9%	191,291	67.9%	20,382	7.2%	288,735	81,266	28.1%	188,101	65.1%	19,368	6.7%
1982	270,000	66,967	24.8%	182,120	67.5%	20,913	7.7%	301,960	82,588	27.4%	199,392	66.0%	19,980	6.6%
1984	288,238	75,625	26.2%	189,767	65.8%	22,846	7.9%	294,767	87,828	29.8%	185,269	62.9%	21,670	7.4%
1986	271,825	75,345	27.7%	172,954	63.6%	23,526	8.7%	292,810	85,604	29.2%	184,835	63.1%	22,371	7.6%
1988	296,407	75,790	25.6%	192,596	65.0%	28,021	9.5%	291,329	82,027	28.2%	183,178	62.9%	26,124	9.0%

Source: Metro Cordon Count Program

EXHIBIT A.10: METROPOLITAN TORONTO PLANNING DISTRICTS AND REGIONS

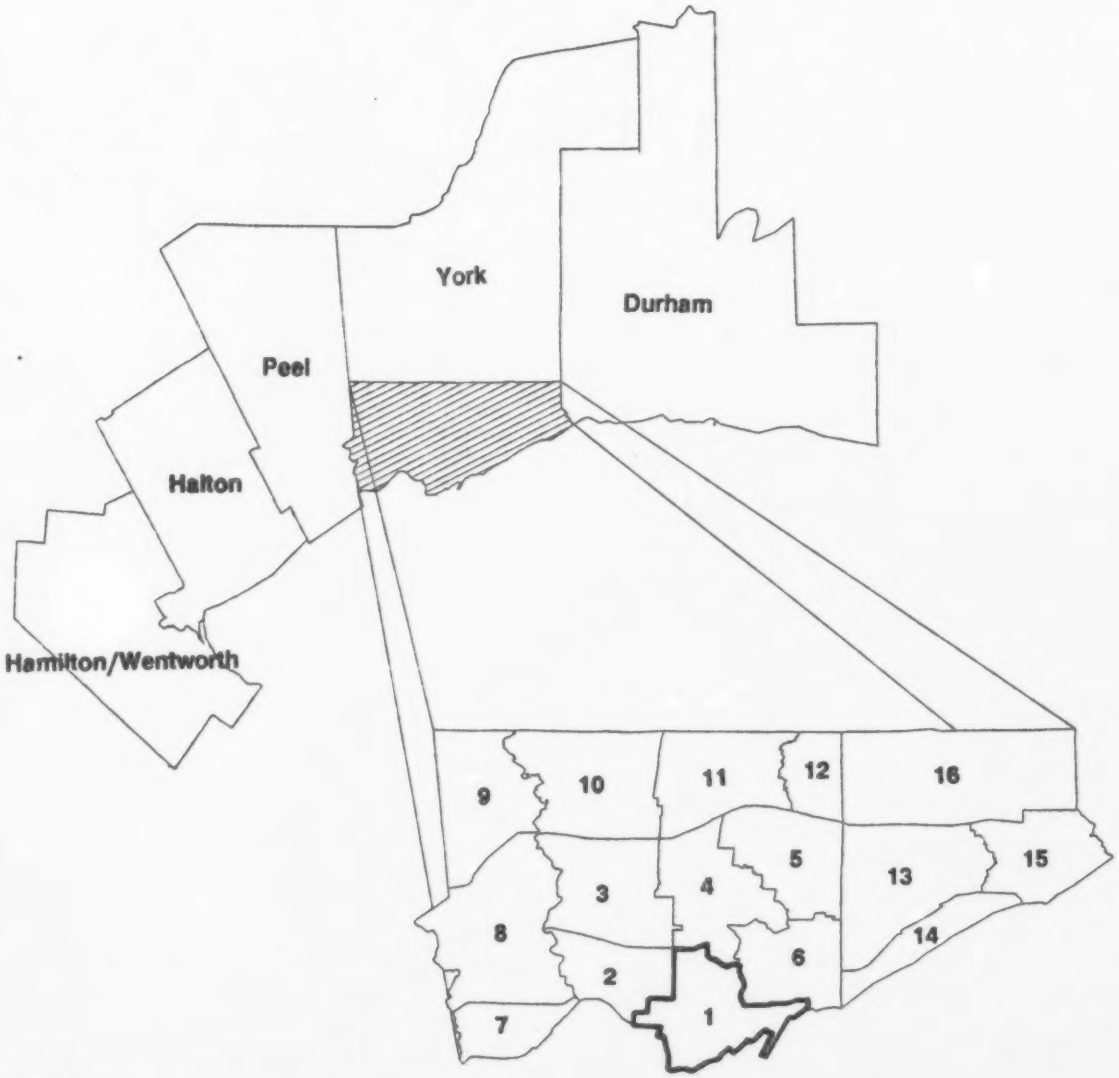


EXHIBIT A.11: PEAK PERIOD HOME-TO-WORK TRIPS TO P.D.1

From	Person Trips	%	Auto	Total Transit (Ex.GO)	GO Train	Walk Cycle Other	Modal Splits From Each District				% Trip Distribution For Each Mode			
							Auto	Total Trans. (Ex.GO)	GO Train	Walk Cycle Other	Auto	Total Trans. (Ex.GO)	GO Train	Walk Cycle Other
P.D 1	23,887	9.4%	4,322	9,261		10,304	18.1%	38.8%		43.1%	4.9%	7.0%		77.4%
P.D. 2	23,339	9.1%	5,673	16,611	23	1,033	24.3%	71.2%	0.1%	4.4%	6.5%	12.6%	0.1%	7.8%
P.D. 3	17,170	6.7%	4,992	11,801	155	221	29.1%	68.7%	0.9%	1.3%	5.7%	8.9%	0.7%	1.7%
P.D. 4	27,515	10.8%	8,724	18,145		646	31.7%	65.9%		2.3%	10.0%	13.7%		4.9%
P.D. 5	8,602	3.4%	3,841	4,640	97	24	44.7%	53.9%	1.1%	0.3%	4.4%	3.5%	0.4%	0.2%
P.D. 6	26,260	10.3%	9,656	15,977	96	531	36.8%	60.8%	0.4%	2.0%	11.0%	12.1%	0.4%	4.0%
P.D. 7	3,066	1.2%	1,445	1,193	333	95	47.1%	38.9%	10.9%	3.1%	1.7%	0.9%	1.5%	0.7%
P.D. 8	13,696	5.4%	5,368	8,100	184	44	39.2%	59.1%	1.3%	0.3%	6.1%	6.1%	0.8%	0.3%
P.D. 9	2,671	1.0%	1,198	1,323	150		44.9%	49.5%	5.6%		1.4%	1.0%	0.7%	
P.D.10	5,408	2.1%	1,818	3,591			33.6%	66.4%			2.1%	2.7%		
P.D.11	10,059	3.9%	2,494	7,421	62	82	24.8%	73.8%	0.6%	0.8%	2.9%	5.6%	0.3%	0.6%
P.D.12	6,869	2.7%	2,297	4,226	303	43	33.4%	61.5%	4.4%	0.6%	2.6%	3.2%	1.4%	0.3%
P.D.13	12,507	4.9%	3,684	8,108	694	21	29.5%	64.8%	5.5%	0.2%	4.2%	6.1%	3.1%	0.2%
P.D.14	5,085	2.0%	1,878	2,322	816	69	36.9%	45.7%	16.0%	1.4%	2.1%	1.8%	3.7%	0.5%
P.D.15	4,927	1.9%	1,896	1,689	1,309	33	38.5%	34.3%	26.6%	0.7%	2.2%	1.3%	5.9%	0.2%
P.D.16	11,061	4.3%	4,761	5,775	503	22	43.0%	52.2%	4.5%	0.2%	5.4%	4.4%	2.3%	0.2%
Metro	202,122	79.1%	64,047	120,183	4,725	13,168	31.7%	59.5%	2.3%	6.5%	73.2%	90.8%	21.2%	99.0%
Durham	7,554	3.0%	3,265	563	3,680	46	43.2%	7.5%	48.7%	0.6%	3.7%	0.4%	16.5%	0.3%
York	13,016	5.1%	6,058	5,418	1,520	20	46.5%	41.6%	11.7%	0.2%	6.9%	4.1%	6.8%	0.2%
Vaughan	2,883	1.1%	1,230	1,585	68		42.7%	55.0%	2.4%		1.4%	1.2%	0.3%	
Markham	5,508	2.2%	2,497	2,323	688		45.3%	42.2%	12.5%		2.9%	1.8%	3.1%	
R.Hill	1,810	0.7%	849	742	219		46.9%	41.0%	12.1%		1.0%	0.6%	1.0%	
R.York	2,815	1.1%	1,481	768	545	20	52.6%	27.3%	19.4%	0.7%	1.7%	0.6%	2.4%	0.2%
Peel	23,145	9.1%	10,067	5,369	7,635	73	43.5%	23.2%	33.0%	0.3%	11.5%	4.1%	34.2%	0.5%
Miss.	18,740	7.3%	7,986	4,697	5,983	73	42.6%	25.1%	31.9%	0.4%	9.1%	3.6%	26.8%	0.5%
Bra./Cal.	4,405	1.7%	2,081	672	1,652		47.2%	15.3%	37.5%		2.4%	0.5%	7.4%	
Halton	8,235	3.2%	3,521	179	4,535		42.8%	2.2%	55.1%		4.0%	0.1%	20.3%	
Ham./Wen.	1,358	0.5%	520	594	244		38.3%	43.7%	18.0%		0.6%	0.4%	1.1%	
Totals	255,430	100.0%	87,477	132,306	22,339	13,307	34.2%	51.8%	8.7%	5.2%	100.0%	100.0%	100.0%	100.0%

Source: Transportation Tomorrow Survey

EXHIBIT A.12: AVERAGE TRAVEL TIMES AND SPEEDS ON MAJOR EAST-WEST ARTERIALS (BETWEEN SPADINA AVENUE AND PARLIAMENT STREET)

ROAD SECTION	AVERAGE DISTANCE (km)	DIRECTION OF FLOW	AM PEAK		OFF PEAK		PM PEAK	
			AVG. TRAVEL SPEED (kph)	AVERAGE TRAVEL TIME	AVG. TRAVEL SPEED (kph)	AVERAGE TRAVEL TIME	AVG. TRAVEL SPEED (kph)	AVERAGE TRAVEL TIME
Bloor Street	2.75	Eastbound	19	8min. 55 sec.	16	10 min. 16 sec.	18	9 min. 4 sec.
		Westbound	20	8 min. 3 sec.	14	11 min. 27 sec.	18	8 min. 59 sec.
Harbord-Wellesley Street	2.89	Eastbound	20	8 min. 30 sec.	18	9 min. 34 sec.	18	9 min. 51 sec.
	2.95	Westbound	22	8 min. 6 sec.	22	8 min. 7 sec.	18	9 min. 37 sec.
College-Carlton Street	2.69	Eastbound	22	7 min. 19 sec.	17	9 min. 31 sec.	17	9 min. 31 sec.
		Westbound	19	8 min. 40 sec.	20	8 min. 2 sec.	19	8 min. 37 sec.
Dundas Street	2.72	Eastbound	20	7 min. 58 sec.	14	12 min. 1 sec.	11	14 min. 17 sec.
		Westbound	18	9 min. 13 sec.	14	11 min. 18 sec.	13	12 min. 58 sec.
Queen Street	2.7	Eastbound	18	9 min. 2 sec.	14	11 min. 59 sec.	13	12 min. 44 sec.
		Westbound	16	9 min. 50 sec.	14	11 min. 25 sec.	15	10 min. 50 sec.
Richmond Street	2.7	Westbound	18	9 min. 0 sec.	19	8 min. 30 sec.	22	7 min. 26 sec.
Adelaide Street	2.7	Eastbound	18	9 min. 10 sec.	18	8 min. 48 sec.	19	8 min. 29 sec.
King Street	2.7	Eastbound	20	8 min. 9 sec.	14	11 min. 14 sec.	15	10 min. 53 sec.
		Westbound	18	9 min. 12 sec.	16	10 min. 19 sec.	14	11 min. 28 sec.

EXHIBIT A.13: AVERAGE TRAVEL TIMES AND SPEEDS ON MAJOR NORTH-SOUTH ARTERIALS

ROAD SECTION	AVERAGE DISTANCE (km)	DIRECTION OF FLOW	AM PEAK		OFF PEAK		PM PEAK	
			AVERAGE TRAVEL SPEED	AVERAGE TRAVEL TIME	AVERAGE TRAVEL SPEED	AVERAGE TRAVEL TIME	AVERAGE TRAVEL SPEED	AVERAGE TRAVEL TIME
Jarvis Street (Front Street & Bloor Street)	2.58	Northbound	20 kph	7 min 54 sec	20 kph	7 min 48 sec	22 kph	7 min 6 sec
		Southbound	22	7 min 10 sec	21	7 min 16 sec	19	8 min 8 sec
Church Street (Front Street & Bloor Street)	2.63	Northbound	23	6 min 46 sec	14	11 min 10 sec	16	9 min 46 sec
		Southbound	20	7 min 57 sec	15	10 min 34 sec	17	9 min 7 sec
Yonge Street (Front Street & Davenport Road)	3.02	Northbound	19	9 min 31 sec	14	12 min 34 sec	18	10 min 17 sec
		Southbound	23	7 min 49 sec	12	14 min 40 sec	13	13 min 34 sec
Bay Street (Front Street & Davenport Road)	3.17	Northbound	21	8 min 59 sec	15	12 min 25 sec	16	11 min 44 sec
		Southbound	20	9 min 44 sec	14	13 min 28 sec	15	12 min 26 sec
University Avenue (Front Street & Davenport Road)	4.67	Northbound	34	8 min 9 sec	24	11 min 46 sec	25	11 min 4 sec
		Southbound	34	8 min 18 sec	23	12 min 8 sec	26	10 min 58 sec
Spadina Avenue (Front Street & Dupont Street)	3.77	Northbound	21	10 min 40 sec	20	11 min 20 sec	21	10 min 56 sec
		Southbound	27	8 min 26 sec	22	10 min 7 sec	17	13 min 41 sec